Audet 10_531533 - - History

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L3	FILE 'REG	ISTRY' ENTERED AT 17:17:25 ON 27 SEP 2006 STR	V
L5 L6	156	6 SEA SSS FUL L3 STR	(Bo /
L7	125	5 SEA SUB=L5 SSS FUL L6	M next
	FILE 'HCA	PLUS' ENTERED AT 17:59:39 ON 27 SEP 2006	m next
L12	59	9 SEA ABB=ON PLU=ON L7 D STAT QUE D IBIB ABS HITSTR L12 1-59	• "
L16	73	3 SEA ABB=ON PLU=ON "FAIRCLOTH G"/AU OR "FAIRCLOTH G T"/AU ("FAIRCLOTH GLYNN"/AU OR "FAIRCLOTH GLYNN T"/AU OR "FAIRCLOTH GLYNN T JR"/AU OR "FAIRCLOTH GLYNN THOMAS"/AU)	
L17	15	5 SEA ABB=ON PLU=ON "CUEVAS M"/AU OR ("CUEVAS MARCHANTE CARMEN"/AU OR "CUEVAS MARCHANTE MARIA DEL CARMEN"/AU)	
L18	:	1 SEA ABB=ON PLU=ON L16 AND L17	
L19	65	5 SEA ABB=ON PLU=ON (L16 OR L17) AND (?TUMOR? OR ?CANCER? ?NEOPLAS? OR ?MALIG?)	OR
L20	. 58	8 SEA ABB=ON PLU=ON (L18 OR L19) NOT L12 D STAT QUE L20 D IBIB ABS HITSTR L20 1-58	

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 SEP 2006 HIGHEST RN 908803-03-2 DICTIONARY FILE UPDATES: 26 SEP 2006 HIGHEST RN 908803-03-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

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Audet 10_531533 - - History

FILE COVERS 1907 - 27 Sep 2006 VOL 145 ISS 14 FILE LAST UPDATED: 26 Sep 2006 (20060926/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 17:59:39 ON 27 SEP 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 27 Sep 2006 VOL 145 ISS 14 FILE LAST UPDATED: 26 Sep 2006 (20060926/ED)

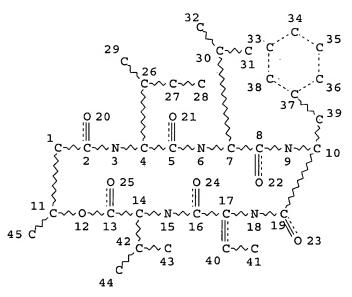
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L3 STR

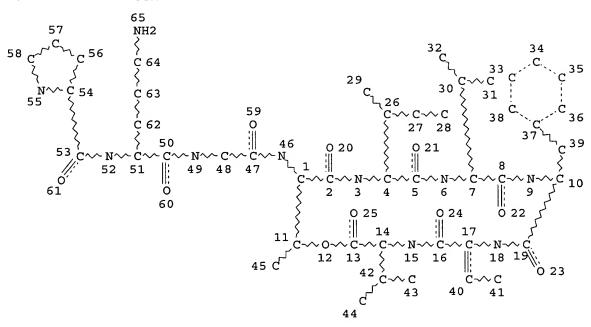


NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 45 STEREO ATTRIBUTES: NONE

L5 156 SEA FILE=REGISTRY SSS FUL L3

L6 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 65

STEREO ATTRIBUTES: NONE

L7 125 SEA FILE=REGISTRY SUB=L5 SSS FUL L6

L12 59 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

=>

=> d ibib abs hitstr l12 1-59

L12 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:213791 HCAPLUS

DOCUMENT NUMBER: 145:179914

TITLE: Adding pharmacogenomics to the development of new

marine-derived anticancer agents

AUTHOR(S): Jimeno, Jose; Aracil, Miguel; Tercero, Juan Carlos

CORPORATE SOURCE: PharmaMar R and D, Madrid, Spain

SOURCE: Journal of Translational Medicine (2006), 4, No pp.

given CODEN: JTMOBV; ISSN: 1479-5876

URL: http://www.translational-

medicine.com/content/pdf/1479-5876-4-3.pdf

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; General Review; (online computer file)

LANGUAGE: English

33

AB A review. Nature has always been a highly productive tool in the development of anticancer therapies. Renewed interest in the potential of this tool has recently been sparked by the realization that the marine ecosystem can be used for the discovery and development of new compds. with clin. potential in advanced resistant tumors. These compds. can be incorporated into combination approaches in a chronic therapy scenario. Our marine anticancer program is using the sea to develop new agents with activity in resistant solid tumors and to identify new cellular targets for therapeutic intervention. This review describes the integration of different pharmacogenomic tools in the development of Yondelis, Aplidin and Kahalalide F, three marine-derived compds. currently in Phase II or III development. Our results are reinforcing the targeted selectivity of these agents and opening the gates for customized therapies in cancer patients in the near future.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(integration of different pharmacogenomic tools in development of kahalalide F may lead to development of customized, potential therapies for cancer in human)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

Audet 10 531533

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:100738 HCAPLUS

DOCUMENT NUMBER: 144:198849

TITLE: Novel dosage form comprising modified-release and

immediate-release active ingredients

INVENTOR(S): Vaya, Navin; Karan, Rajesh Singh; Sadanand, Sunil;

Gupta, Vinod Kumar

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of U.S.

Ser. No. 630,446.

CODEN: USXXCO

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006024365	A1	20060202	US 2005-134633	20050519
IN 193042	Α	20040626	IN 2002-MU697	20020805
US 2004096499	A1	20040520	US 2003-630446	20030729
PRIORITY APPLN. INFO.:			IN 2002-MU697 A	20020805
			IN 2002-MU699 A	20020805
			IN 2003-MU80 A	20030122
			IN 2003-MU82 A	20030122
			US 2003-630446 A	2 20030729

AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.

IT 149204-42-2, Kahalalide F

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (novel dosage form comprising modified-release and immediate-release active ingredients)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

531,

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{N}}$ NH $\stackrel{\circ}{_{N}$

PAGE 1-B

L12 ANSWER 3 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1321640 HCAPLUS

DOCUMENT NUMBER:

145:116379

TITLE:

Ecteinascidin 743 (ET-743; Yondelis), aplidin, and

kahalide F

AUTHOR (S):

Henriquez, Ruben; Faircloth, Glynn; Cuevas, Carmen

CORPORATE SOURCE: PharmaMar, Madrid, 28770, Spain

SOURCE:

Anticancer Agents from Natural Products (2005), 215-240, 2 plates. Editor(s): Cragg, Gordon M.; Kingston, David G. I.; Newman, David J. CRC Press

LLC: Boca Raton, Fla.

CODEN: 69HQQY; ISBN: 0-8493-1863-7

DOCUMENT TYPE:

Conference; General Review

LANGUAGE:

English

AB A review on the first generation of drugs isolated from marine organisms, i.e., Ecteinascidin 743, Aplidin, and Kahalide F. Topics discussed include their origin, mechanisms of action, chemical synthesis, drug development, and clin. studies.

IT 149204-42-2, Kahalalide F

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Kahalalide F was developed to treat cancer in patient)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

104 THERE ARE 104 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE **FORMAT**

L12 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1290072 HCAPLUS

DOCUMENT NUMBER:

144:46998

TITLE:

The X-ray crystal structure of BRCA1 tandem BRCT repeat and BACH1 phosphopeptide complex and methods

INVENTOR(S):

and compositions for antitumor drug design Yaffe, Michael B.; Clapperton, Julie A.; Manke, Isaac

A.; Lowery, Drew M.; Ho, Timmy; Haire, Lesley F.;

Smerdon, Stephen J.

PATENT ASSIGNEE(S):

Massachusetts Institute of Technology, USA

PCT Int. Appl., 360 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE APPLICATION NO.

DATE

3.3

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20051208
                                    WO 2005-US15981
WO 2005115454
                    A2
       AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
       CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
       GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
       LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
       NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
       SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
        ZA, ZM, ZW
   RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
       AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
       EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
       RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
       MR, NE, SN, TD, TG
                                       US 2004-569131P
                                                           P 20040507
```

PRIORITY APPLN. INFO.:

The present invention relates to compds. (e.g., peptidomimetics and AB non-peptides) that treat, prevent or stabilize cellular proliferative disorders and methods of treating, preventing, or stabilizing such disorders. The invention also provides three-dimensional structures of a BRCT domain-BACH1 phosphopeptide complex.

IT 149204-42-2, Kahalalide F

> RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(X-ray crystal structure of BRCA1 tandem BRCT repeat and BACH1 phosphopeptide complex and methods and compns. for antitumor drug design)

149204-42-2 HCAPLUS RN

Kahalalide F (9CI) (CA INDEX NAME) CN

L12 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1247908 HCAPLUS

DOCUMENT NUMBER: 144:183875

TITLE: Research advances in marine antineoplastic agents
AUTHOR(S): Jiang, Qingfeng; Zhou, Youjun; Wang, Jinzheng
CORPORATE SOURCE: Department of pharmacochemistry, Second Military

Medical University, Shanghai, 200433, Peop. Rep. China

SOURCE: Zhongguo Haiyang Yaowu (2004), 23(6), 58-61

CODEN: ZHYAE8; ISSN: 1002-3461

PUBLISHER: Shandonqshenq Haiyanq Yaowu Kexue Yanjiuso

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

AB A review with 17 refs. on research advances in marine antineoplastic agents including: the development in the study of marine antineoplastic drugs. Owing to their unique mechanism of action, marine antineoplastic compds. have been got more and more attention and the study of marine antineoplastic drugs is becoming a focus now.

IT 149204-42-2P, Kahalalide F

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(research advances in marine antineoplastic agents)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

L12 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1170451 HCAPLUS

DOCUMENT NUMBER:

143:440762

TITLE:

111 1E.+

Convergent synthesis for kahalalide compounds

INVENTOR(S):

Tubby, David George; Francesch Solloso, Andres; Lopez Macia, Angel; Cuevas Marchante, Carmen; Albericio Palomera, Fernando; Acosta Crespo, Gerardo; Cruz Ricondo, Luis Javier; Giralt Lledo, Ernest; Gracia

Cantador, Carolina; Isidro Lobet, Albert

PATENT ASSIGNEE(S):

Pharma Mar, S.A.U., Spain

SOURCE:

PCT Int. Appl., 45 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

868546-99-0P 868547-03-9P

PATENT INFORMATION:

	PAT	ENT	NO.			KIN	D :	DATE			APPL	ICAT	ION 1	NO.		D.	ATE	
							-									-		
	WO	2005	1030	72		A1		2005	1103	1	WO 2	005-0	GB15	37		2	0050	422
	WO	2005	1030	72		C1		2006	0518									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑŻ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,
			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
			NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,
			SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,
	ZM, ZW				•	·	•	•	•	•	•	•	•	•	•	•	•	
	RW: BW, GH, GM,				KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
			-	-	-	-		-	-			•			•	CZ,		•
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RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(convergent synthesis for kahalalide compds.)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 681272-30-0 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

33

PAGE 1-A

PAGE 1-B

RN 868546-99-0 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-6-D-ornithine-(9CI) (CA INDEX NAME)

RN

868547-03-9 HCAPLUS Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-7-L-isoleucine-CN(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

4

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L12 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1084693 HCAPLUS

DOCUMENT NUMBER: 144:23111

TITLE: Use of p-nitrobenzyloxycarbonyl (pNZ) as a permanent

protecting group in the synthesis of kahalalide F

analogs

AUTHOR(S): Lopez, Pilar E.; Isidro-Llobet, Albert; Gracia,

Carolina; Cruz, Luis J.; Garcia-Granados, Andres; Parra, Andres; Alvarez, Mercedes; Albericio, Fernando

CORPORATE SOURCE: Barcelona Biomedical Research Institute, Barcelona,

08028, Spain

SOURCE: Tetrahedron Letters (2005), 46(45), 7737-7741

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB P-Nitrobenzyloxycarbonyl (pNZ) is used for the permanent protection of ornithine in the synthesis of derivs. of the anti-tumor cyclodepsipeptide

Kahalalide F that contain acid-labile residues.

IT 149204-42-2DP, Kahalalide F, analogs 847834-59-7P

847834-61-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(p-nitrobenzyloxycarbonyl protection of ornithine residue in synthesis

of kahalalide F analogs)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

RN 847834-59-7 HCAPLUS

CN Kahalalide F, 1-[N-[(2 α ,3 β)-2,3-dihydroxy-28-oxoolean-12-en-28-yl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-B

ti det

PAGE 1-C

847834-61-1 HCAPLUS RN

Kahalalide F, 1-[N-[(3β)-3-hydroxy-28-oxoolean-12-en-28-yl]-D-valine]-CN(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

PAGE 1-C

REFERENCE COUNT:

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1004983 HCAPLUS

DOCUMENT NUMBER:

143:284098

TITLE:

Genes induced by specific antitumor agents as

indicators in the diagnosis, prognosis, and selection

of cancer therapies

INVENTOR(S):

Ross, Douglas T.; Ring, Brian Z.; Seitz, Robert S.

PATENT ASSIGNEE(S): Applied Genomics, Inc., USA

SOURCE:

PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

J153

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WO 2005085863
                                20050915
                                            WO 2005-US3943
                          A2
                                                                    20050204
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
           · CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                                20051013
    US 2005227266
                          A1
                                            US 2005-50567
                                                                    20050203
PRIORITY APPLN. INFO.:
                                            US 2004-542370P
                                                                P 20040206
    Genes that are induced in specific cancers in response to exposure to
AB
     specific antineoplastics are identified for use in the diagnosis and
    prognosis of the diseases and in the selection of suitable therapies.
                                                                            The
    invention provides correlated biomarker: compound pairs, and further
    provides methods of using such pairs, for example, in the identification
    of tumors or tumor cells likely to be responsive or resistant to
    particular therapy, and/or the identification of chemical compds. likely (or
    unlikely) to be useful in the treatment of particular tumors.
IT
     149204-42-2, Kahalalide F
    RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study);
    USES (Uses)
        (genes induced by specific antitumor agents as indicators in diagnosis,
       prognosis, and selection of cancer therapies)
RN
     149204-42-2 HCAPLUS
CN
     Kahalalide F (9CI)
                        (CA INDEX NAME)
```

Absolute stereochemistry. Double bond geometry as shown.

1. C. ...

L12 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2

2005:700422 HCAPLUS

DOCUMENT NUMBER:

143:222005

TITLE:

Kahalalide F induces necrosis-like cell death that

involves depletion of ErbB3 and inhibition of Akt

signaling

AUTHOR (S):

Janmaat, Maarten L.; Rodriguez, Jose A.; Jimeno, Jose;

Kruyt, Frank A. E.; Giaccone, Giuseppe

CORPORATE SOURCE:

Department of Oncology, VU University Medical Center,

Amsterdam, Neth.

SOURCE:

Molecular Pharmacology (2005), 68(2), 502-510

CODEN: MOPMA3; ISSN: 0026-895X

PUBLISHER:

American Society for Pharmacology and Experimental

Therapeutics

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Kahalalide F (KF) is a novel marine-derived antitumor agent that is ΔR currently undergoing phase II clin. trials. The mechanism of action of KF is not well understood. In line with previous reports, we show that KF caused rapid and potent cytotoxicity in the breast cancer cell lines SKBR3 and BT474, characterized by cytoplasmic swelling and DNA clumping. Several markers of caspase-dependent apoptosis, such as phosphatidyl-serine externalization, cytochrome c release, and caspase-3 and poly(ADP-ribose) polymerase cleavage were neg. after KF exposure. Inhibitors of caspases or cathepsins failed to protect against KF cytotoxicity. Altogether, these data indicate that KF-induced cell death is a necrosis-like process. The sensitivity to KF in a panel of human tumor cell lines derived from breast (SKBR3, BT474, and MCF7), vulval (A431), non-small-cell lung (H460, A549, SW1573, and H292), and hepatic (Skhep1, HepG2, and Hep3B) carcinomas pos. correlated with ErbB3 (HER3) protein levels. A KF-resistant subline of colon carcinoma cells, HT29/KF, expressed significantly reduced levels of all ErbB receptors, but short-term KF exposure of sensitive cell lines such as SKBR3 selectively induced down-regulation of ErbB3. On the other hand, stable transfection of an ErbB3-expressing plasmid increased the KF sensitivity of H460 cells, the most resistant cell line in our panel. Finally, we found that KF efficiently inhibited the phosphatidylinositol 3-kinase (PI3K)-Akt signaling pathway in sensitive cell lines and that ectopic expression of a constitutively active Akt mutant reduced KF cytotoxicity in this cell line. In summary, our results identify ErbB3 and the downstream PI3K-Akt pathway as important determinants of the cytotoxic activity of KF in vitro.

IT 149204-42-2, Kahalalide F

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU

` 33lbar

(Therapeutic use); BIOL (Biological study); USES (Uses)

(kahalalide F induces necrosis-like cell death that involves depletion of ErbB3 and inhibition of Akt signaling)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

39

ACCESSION NUMBER:

2005:644590 HCAPLUS

DOCUMENT NUMBER:

143:399086

TITLE:

The mechanism of action of Kahalalide F: Variable cell

permeability in human hepatoma cell lines

AUTHOR (S):

Sewell, J. M.; Mayer, I.; Langdon, S. P.; Smyth, J.

F.; Jodrell, D. I.; Guichard, S. M.

. CORPORATE SOURCE:

Pharmacology and Drug Development Team, Cancer

Research UK Centre, University of Edinburgh, Western

General Hospital, Edinburgh, EH4 2XR, UK

SOURCE:

European Journal of Cancer (2005), 41(11), 1637-1644

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER:

Elsevier Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE: English

Kahalalide F (KF) is a small natural peptide that showed activity in vitro AB and in vivo. The dose-limiting toxicity in clin. trials was transaminitis. We investigated the cytotoxicity of KF in cell lines from breast, ovary, prostate and colon cancers, but focused on hepatoma cell lines, performing mechanistic studies in HepG2 (IC50 = $0.3 \mu M$) and PLC/PRF/5C (IC50 = 5 μ M). Following KF exposure, HepG2 cells demonstrated profound ATP depletion, associated with cell swelling and cell blebbing, and increased permeability to propidium iodide (PI), annexin V (AV) and release of lactate dehydrogenase (LDH). PLC/PRF/5C cells retained their cell structure, but were permeable to PI and, following exposure to high concns. of KF, to AV. The pattern of cell permeability is similar to maitotoxin, another small cytotoxic peptide, but the differential effects on the cell membrane induced by KF in HepG2 and PLC/PRF/5C suggest specific interactions with membranes or proteins. could lead to better drug design aimed at exploiting the potential for cell selectivity.

IT 149204-42-2, Kahalalide F

RL: BSU (Biological study, unclassified); DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(kahalalide F induced cytotoxicity in breast, prostate, ovary and colon cancer cell lines and was sensitive to HepG2 cell but resistant to PLC/PRF/5C hepatoma cell and showed cell blebbing and ATP depletion in both hepatoma cell line)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

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32

PAGE 1-B

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:540495 HCAPLUS

DOCUMENT NUMBER:

143:48021

TITLE:

Solvent for biogenic active pharmaceutical ingredients

derived from toxins

INVENTOR (S):

Weickmann, Dirk

PATENT ASSIGNEE(S):

Toximed G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 22 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

]	PAT	ENT	NO.				IND DATE APPLICATION NO.								DATE				
	WO	2005	0560:	 27		A2 20050623								20041210					
1	OW	2005	0560	27		A3		2005	0721										
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
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			EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	
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			MR,	NE,	SN,	TD,	TG												
I	DΕ	1035	7970			A1		2005	0707		DE 2	003-	1035	7970	20031211				
I	EP 1699473							2006	0913		EP 2	004-	8029	02918			2004121		
	R: AT, BE, CH						DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
	IE, SI, LT,							CY,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,	IS			
PRIOR	PRIORITY APPLN. INFO.:										DE 2	003-	1035	7970	1	A 2	211		
										1	WO 2	004-	DE27	13	1	W 2	0041	210	

AB The invention relates to a solvent for biogenic active pharmaceutical ingredients, which is basically comprised of the following components: (a) 7 mL of the homeopathic substance Tarantula D4 intermingled in 15 mL of a 0.9 % NaCl solution as basic component; (b) up to 0.5 of a saturated solution of the

entire poisonous cocktail from spiders of the species Loxosceles laeta, or Loxosceles gaucho, or Loxosceles Mallorca, or Loxosceles Menorca is added

to the basic component, (c) the entire poisonous cocktail is ground into an anhydrous formic acid depending on the required quant. proportions, 1 to 2 mL of the entire exts. of poisons of bulldog ants being in turn added thereto, wherein said amount relates to a total amount of 10 mL of the entire poisonous cocktail.

IT 149204-42-2, Kahalalide F

RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(solvent for biogenic active pharmaceutical ingredients derived from toxins)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

L12 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:409661 HCAPLUS

DOCUMENT NUMBER:

142:444570

TITLE:

Kahalalide-producing bacteria and methods of identifying kahalalide-producing bacteria and

preparing kahalalides

INVENTOR(S):

Hill, Russell T.; Hamann, Mark T.; Enticknap, Julie;

Rao, Karumanchi V.

PATENT ASSIGNEE(S):

University of Maryland Biotechnology Institute, USA;

1------

University of Mississippi PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE: ·

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	CENT :	NO.			KIN										D	ATE		
WO	2005	0427	20		A2		2005	0512	1	WO 2	004-1	JS36:	201		2	0041	CH, GD, LC, NI, SY, ZW AM, DK, RO, MR,	
	W: AE, AG, AL,				AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
	CN, CO, CR,			CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
	TJ, TM, TN,				TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW	
	RW: BW, GH, GM, AZ, BY, KG,		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,		
			KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,		
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	
	•	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	
		NE,	SN,	TD,	TG	•		•	•	·	,				•	•	•	
EP								0816	1	EP 2	004-	8005	12	20041101				
	R: AT, BE, CH,					DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,	
			ıs,		•	·	•	•	•	•	•	•	•	•	•	•	•	
PRIORITY						1	US 2	003-	5160	06P]	2 2	0031	031				
										W 20041101								

- AB Disclosed are strains of Vibrio sp. bacteria that produce kahalalides or derivs. thereof, methods of isolating said strains, and 16S rRNA sequences useful in identifying kahalalides producing bacteria. Thus, based on a microbiol. examination of Bryopsis sp. and Elysia rufescens, the inventors discovered a kahalalide F-producing Vibrio associated with these organisms. It is theorized that the E. rufescens acquires kahalalide F-producing Vibrio from the surface of the Bryopsis and maintains these microbes as symbionts.
- IT 149204-42-2P, Kahalalide F

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)

(kahalalide-producing bacteria and methods of identifying kahalalide-producing bacteria and preparing kahalalides)

RN149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

L12 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:409543 HCAPLUS

DOCUMENT NUMBER: 142:457053

TITLE: Human protein IAP (inhibitor of apoptosis protein)

nucleobase oligomers, including dsRNA, shRNA, and siRNA, and their use for enhancing apoptosis in cancer

therapy

INVENTOR(S): Lacasse, Eric; McManus, Daniel PATENT ASSIGNEE(S): Aegera Therapeutics, Inc., Can.

SOURCE: PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION N	O. DATE
WO 2005042558	A1 2005	0512 WO 2004-CA190	2 20041029
W: AE, AG, A	L, AM, AT, AU,	AZ, BA, BB, BG, BR,	BW, BY, BZ, CA, CH,
CN, CO, C	R, CU, CZ, DE,	DK, DM, DZ, EC, EE,	EG, ES, FI, GB, GD,
GE, GH, G	M, HR, HU, ID,	IL, IN, IS, JP, KE,	KG, KP, KR, KZ, LC,
LK, LR, L	S, LT, LU, LV,	MA, MD, MG, MK, MN,	MW, MX, MZ, NA, NI,
NO, NZ, C	M, PG, PH, PL,	PT, RO, RU, SC, SD,	SE, SG, SK, SL, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2005148535 20050707 US 2004-975974 A1 20041028 CA 2004-2542904 CA 2542904 AA 20050512 20041029 EP 2004-789809 EP 1682565 Α1 20060726 20041029 . R: DE, FR, GB PRIORITY APPLN. INFO.: US 2003-516192P 20031030 WO 2004-CA1902 W 20041029

The invention provides nucleobase oligomers and oligonucleotide duplexes AB that inhibit expression of an IAP (inhibitor of apoptosis protein), and methods for using them to induce apoptosis in a cell. Specifically, the invention provides nucleic acid sequences for siRNAs and shRNAs that target human XIAP, HIAP-1 or HIAP-2 genes. The nucleobase oligomers and oligomer complexes of the present invention may also be used to form pharmaceutical compns. The invention also features methods for enhancing apoptosis in a cell by administering a nucleobase oligomer or oligomer complex of the invention in combination with a chemotherapeutic or chemosensitizing agent. RNAi sequences and vectors producing shRNA (short hairpin RNA) were transfected into HeLa cells and evaluated for their effect on XIAP, cIAP-1, or cIAP-2 protein levels. XIAP protein could also be reduced by RNAi clones in transfected breast cancer cell line MDA-MB-231. In addition, cell survival was reduced in XIAP RNAi transfected breast cancer cell line after the transfected cells were treated with TRAIL (tumor necrosis factor-related apoptosis inducing ligand). IT

149204-42-2, Kahalalide F
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(human protein IAP (inhibitor of apoptosis protein) nucleobase
oligomers, including dsRNA, shRNA, and siRNA, and their use for
enhancing apoptosis in cancer therapy)

RN 149204-42-2 HCAPLUS

3

CN Kahalalide F (9CI) (CA INDEX NAME)

L12 ANSWER 14 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:409357 HCAPLUS

DOCUMENT NUMBER: 142:457052

TITLE: Sequences of antisense IAP (inhibitor of apoptosis

protein) oligomers and their use for treatment of proliferative diseases with a chemotherapeutic agent

INVENTOR(S): Lacasse, Eric; McManus, Daniel; Durkin, Jon P.

PATENT ASSIGNEE(S): Aegera Therapeutics, Inc., Can.

SOURCE: PCT Int. Appl., 285 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			IND DATE APPLICATION NO.							D	DATE			
WO 200	 504203	0									20041029				
W:	AE,	AG, AL	AM,	AT, AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
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	•		-	HU, ID,		-			-	-	-				
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	NO,	NZ, OM	PG,	PH, PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
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RW	: BW,	GH, GM	KE,	LS, MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
				MD, RU,											
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	SN,	TD, TG													
US 200	511921	7	A1	2005	0602	1	JS 20	004-	97579	20041028					
AU 200	428485	5	A1	2005	0512	7	AU 20	004-2	2848	20041029					
CA 254	2884	AA	2005	0512	(CA 2	004-	25428	884	20041029					
EP 169	1842		A1	2006	0823	3	EP 20	004-	78980	07	20041029				
R:	AT,	BE, CH,	DE,	DK, ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
	IE,	SI, LT	LV,	FI, RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,	HR
PRIORITY AP]				
						7	NO 2	004-0	CA19	00	W 20041029				

AB The invention claims the use of an antisense oligomer to human XIAP, IAP-1 or IAP-2 genes and a chemotherapeutic agent, and compns. and kits thereof, for the treatment of proliferative diseases. The invention further claims sequences for nucleobase oligomers that are antisense IAP (inhibitor of apoptosis protein) oligomers. The antisense IAP nucleobase oligomers specifically hybridize with polynucleotides encoding an IAP and reduce the amount of an IAP protein produced in a cell. Thus by reducing the IAP

1.41 4 5 50

33

protein, the invention provides methods for inducing cancer cells to undergo apoptosis and for overriding anti-apoptotic signals in cancer cells. As an example of the invention, mice with s.c. H460 human lung carcinoma xenografts were injected intratumorally with XIAP antisense mixed-base 2'-O-Me RNA oligonucleotides (C5 and/or G4) and the drug vinorelbine. At the end of the 24 d treatment period, the mean relative tumor growth was reduced .apprx.70% in treated mice. The inhibition of tumor growth was correlated with down-regulation of human XIAP protein expression and an increased number of dead cells. The mice did not show any signs of cytotoxicity such as body weight loss.

IT 149204-42-2, Kahalalide F

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (sequences of antisense IAP (inhibitor of apoptosis protein) oligomers and their use for treatment of proliferative diseases with chemotherapeutic agent)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:283298 HCAPLUS

Audet 10 531533 Video /

DOCUMENT NUMBER: 142:349042

TITLE: Combinations of chlorpromazine compounds and

antiproliferative drugs for the treatment of neoplasms

INVENTOR(S): Lee, Margaret S.; Nichols, James M.; Zhang, Yanzhen;

Keith, Curtis

PATENT ASSIGNEE(S): Combinatorx, Incorporated, USA

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

		KIN			APPLICATION NO. 0050331 WO 2004-US30368 0051222 AU, AZ, BA, BB, BG, BR, BW, B DE, DK, DM, DZ, EC, EE, EG, E												
						2005	1										
				AM, CU,	AT, CZ,	AU, DE,	AZ, DK,	BA, DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
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AU 20	SN, 042739	TD, 10		A 1		2005	0331		AU 2	004-	2739	10		2	0040	916	
	38570												20040916				
EP 16	EP 1670477						0621		EP 2	004-	7887	98	20040916				
R	: AT,		•						•		•	•	•		•	•	UD
NO 20	•			•				CY, AL, TR, BG, CZ, NO 2006-1325									пк
PRIORITY A								1	US 2	003-	5043	10P] 	P 2	0030	918	

OTHER SOURCE(S): MARPAT 142:349042

AB The invention discloses a method for treating a patient having a cancer or other neoplasm by administering chlorpromazine or a chlorpromazine analog and an antiproliferative agent simultaneously or within 14 days of each other in amts. sufficient to treat the patient.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chlorpromazine compound-antiproliferative drug antitumor combination) 149204-42-2 HCAPLUS

RN 149204-42-2 HCAPLUS CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

L12 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:239012 HCAPLUS

DOCUMENT NUMBER: 142:298335

33

TITLE: Preparation of kahalalide F analogs as antitumor

agents

INVENTOR(S): Albericio Palomera, Fernando; Fernandez Donis,

Ariadna; Giralt Lledo, Ernest; Gracia Cantador, Carolina; Lopez Rodriguez, Pilar; Varon Colomer, Sonia; Cuevas Marchante, Carmen; Lopez Macia, Angel;

Francesch Solloso, Andres; Jiminez Garcia,

Jose-Carlos; Royo Exposito, Miriam

PATENT ASSIGNEE(S): Pharma Mar, S.A.U., Spain; Ruffles, Graham Keith

SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2005023846 A1 20050317 WO 2004-GB3847 20040909

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

Audet 10 531533

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                                                                                20040909
     CA 2537128
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                                                    EP 2004-768394
                                                                                20040909
     EP 1664093
                               A1
                                      20060607
               AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
PRIORITY APPLN. INFO.:
                                                    GB 2003-21066
                                                                            A 20030909
                                                    WO 2004-GB3847
                                                                            W
                                                                               20040909
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OTHER SOURCE(S): MARPAT 142:298335

AB The invention relates to new analogs of kahalalide F in which one or more exocyclic or cyclic amino acids has been substituted by other natural or nonnatural amino acids, masked with organic groups, or been removed or in which the terminal 5-methylhexanoyl (5-MeHex) group has by substituted by other acyl groups or been removed. Thus, [(4S)-MeHex14]-kahalalide F was prepared by the solid-phase method and assayed for cytotoxic activity against various cell lines.

IT 681272-30-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of kahalalide F analogs as antitumor agents)

RN 681272-30-0 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]- (9CI) (CA INDEX NAME)

- 4 47574

PAGE 1-B

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IT
     149204-42-2DP, Kahalalide F, analogs 681272-31-1P
     782486-09-3P 847833-53-8P 847833-57-2P
     847833-58-3P 847833-59-4P 847833-60-7P
     847833-61-8P 847833-65-2P 847833-66-3P
     847833-67-4P 847833-68-5P 847833-69-6P
     847833-70-9P 847833-71-0P 847833-72-1P
     847833-73-2P 847833-74-3P 847833-75-4P
     847833-76-5P 847833-77-6P 847833-78-7P
     847833-79-8P 847833-81-2P 847833-82-3P
     847833-83-4P 847833-84-5P 847833-85-6P
     847833-86-7P 847833-87-8P 847833-88-9P
     847833-89-0P 847833-90-3P 847833-91-4P
     847833-92-5P 847833-93-6P 847833-94-7P
     847833-95-8P 847833-96-9P 847833-97-0P
     847833-98-1P 847833-99-2P 847834-00-8P
     847834-01-9P 847834-02-0P 847834-03-1P
     847834-04-2P 847834-05-3P 847834-06-4P
     847834-07-5P 847834-08-6P 847834-09-7P
     847834-12-2P 847834-17-7P 847834-19-9P,
     enantio-Kahalalide F 847834-20-2P 847834-21-3P
     847834-22-4P 847834-23-5P 847834-24-6P
     847834-25-7P 847834-28-0P 847834-30-4P
     847834-31-5P 847834-32-6P 847834-33-7P
     847834-34-8P 847834-35-9P 847834-36-0P
     847834-38-2P 847834-46-2P 847834-52-0P
     847834-54-2P 847834-59-7P 847834-61-1P
     847834-63-3P 847834-65-5P 847834-67-7P
     847834-68-8P 847834-69-9P 847834-70-2P
     847834-71-3P 847834-72-4P 847834-73-5P
     847834-74-6P 847834-75-7P 847834-76-8P
     847834-77-9P 847834-78-0P 847834-79-1P
     847834-80-4P 847834-81-5P 847901-22-8P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of kahalalide F analogs as antitumor agents)
RN
     149204-42-2 HCAPLUS
```

(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Kahalalide F (9CI)

CN

RN 681272-31-1 HCAPLUS
CN Kahalalide F, 1-[N-[(4R)-4-methyl-1-oxohexyl]-D-valine]- (9CI) (CA INDEX NAME)

33 .

PAGE 1-B

RN 782486-09-3 HCAPLUS CN Kahalalide F, 3-(L-valine-2,3,4,4,4,4',4',4'-d8)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-53-8 HCAPLUS CN Kahalalide F, 8-D-threonine- (9CI) (CA INDEX NAME) Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-57-2 HCAPLUS CN Kahalalide F, 2-L-valine- (9CI) (CA INDEX NAME)

Page 34

RN 847833-58-3 HCAPLUS CN Kahalalide F, 2-D-threonine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

33

PAGE 1-B

RN 847833-59-4 HCAPLUS

CN Kahalalide F, 1-[3-cyclohexyl-N-(5-methyl-1-oxohexyl)-D-alanine]- (9CI)

(CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

RN

847833-60-7 HCAPLUS Kahalalide F, 3-[(α S)- α -aminocyclohexanebutanoic acid]- (9CI) CN(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 847833-61-8 HCAPLUS

CN L-Valine, 3-cyclohexyl-N-(5-methyl-1-oxohexyl)-D-alanyl-L-threonyl-(αS)-α-aminocyclohexanebutanoyl-D-valyl-D-prolyl-L-ornithyl-D-alloisoleucyl-D-allothreonyl-D-alloisoleucyl-D-valyl-L-phenylalanyl-(2Z)-2-amino-2-butenoyl-, (13→8)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 847833-65-2 HCAPLUS CN Kahalalide F, 1-[N-(1-oxoeicosyl)-D-valine]- (9CI) (CA INDEX NAME)

Page 38

RN 847833-66-3 HCAPLUS CN Kahalalide F, 1-[N-(1-oxoundecyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-67-4 HCAPLUS

CN Kahalalide F, 1-[N-(4-methyl-1-oxohexyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-68-5 HCAPLUS CN Kahalalide F, 1-[N-(1-oxooctyl)-D-valine]- (9CI) (CA INDEX NAME)

Page 40

RN 847833-69-6 HCAPLUS CN Kahalalide F, 1-[N-(4-methylbenzoyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

RN 847833-70-9 HCAPLUS

CN Kahalalide F, 1-(N-benzoyl-D-valine) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-71-0 HCAPLUS

CN Kahalalide F, 1-[N-[4-(trifluoromethyl)benzoyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Et Me Me Pr-i
$$Me$$
 Me Et Me

RN 847833-72-1 HCAPLUS

33

CN Kahalalide F, 1-[N-[(3,5-difluorophenyl)acetyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

RN 847833-73-2 HCAPLUS

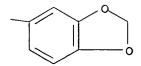
CN Kahalalide F, 1-[N-(1,3-benzodioxol-5-ylcarbonyl)-D-valine]- (9CI) (CA

INDEX NAME)

Absolute stereochemistry. Double bond geometry as described by E or Z.

PAGE 1-B

PAGE 1-C



RN 847833-74-3 HCAPLUS

CN Kahalalide F, 1-[N-[1-oxo-3-[4-(trifluoromethyl)phenyl]-2-propenyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

PAGE 1-B

Et Me Me Pr-i O Me
$$ZH$$
 N ZH O ZH ZH

RN 847833-75-4 HCAPLUS

CN Kahalalide F, 1-[N-[[4-(trifluoromethyl)phenyl]acetyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Page 45

RN 847833-76-5 HCAPLUS

CN Kahalalide F, 1-[N-(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-1-oxoheptyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-77-6 HCAPLUS

CN Kahalalide F, 1-[N-(1,6-dioxoheptyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-78-7 HCAPLUS

CN Kahalalide F, 1-[N-(6,6-difluoro-1-oxoheptyl)-D-valine]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 847833-79-8 HCAPLUS
CN Kahalalide F, 1-[N-[4-[(aminoiminomethyl)amino]-1-oxobutyl]-D-valine](9CI) (CA INDEX NAME)

PAGE 1-A

$$H_{2}N$$
 $H_{2}N$
 $H_{2}N$
 H_{1}
 $H_{2}N$
 H_{1}
 $H_{2}N$
 H_{1}
 $H_{2}N$
 $H_{2}N$
 $H_{2}N$
 H_{3}
 H_{4}
 $H_{2}N$
 H_{3}
 H_{4}
 H_{5}
 $H_{$

RN 847833-81-2 HCAPLUS

CN 4-13-Kahalalide F, 4-[N-(5-methyl-1-oxohexyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-B

RN 847833-82-3 HCAPLUS

CN 4-13-Kahalalide F, 4-[N-(1-oxotetradecyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-83-4 HCAPLUS CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)glycine]- (9CI) (CA INDEX NAME)

Page 50

RN 847833-84-5 HCAPLUS
CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-D-alanine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

33

PAGE 1-B

RN 847833-85-6 HCAPLUS

CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-D-leucine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-86-7 HCAPLUS

CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-D-phenylalanine]- (9CI) (CA INDEX NAME)

RN 847833-87-8 HCAPLUS

CN Kahalalide F, 1-[1-(5-methyl-1-oxohexyl)-D-proline]- (9CI) (CA INDEX NAME)

PAGE 1-A

$$Me_2CH$$
 (CH₂)₃ O Me OH $i-Pr$ $i-Pr$ $i-Pr$ $i-Pr$ $i-Pr$

RN 847833-88-9 HCAPLUS

CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-L-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-89-0 HCAPLUS

CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-D-glutamic acid]- (9CI) (CA INDEX NAME)

PAGE 1-A

Me₂CH (CH₂) 3 NH Me R S NH NH NH NH
$$i-Pr$$
 S NH $i-Pr$ S NH

PAGE 1-B

RN 847833-90-3 HCAPLUS

Fuder

CN Kahalalide F, 1-[N2-(5-methyl-1-oxohexyl)-D-glutamine]- (9CI) (CA INDEX NAME)

RN 847833-91-4 HCAPLUS

CN Kahalalide F, 1-[N-(5-methyl-1-oxohexyl)-D-threonine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-92-5 HCAPLUS

CN Kahalalide F, 3-glycine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-93-6 HCAPLUS CN Kahalalide F, 3-L-phenylalanine- (9CI) (CA INDEX NAME)

RN 847833-94-7 HCAPLUS CN Kahalalide F, 3-L-alanine- (9CI) (CA INDEX NAME)

PAGE 1-A

RN. 847833-95-8 HCAPLUS CN Kahalalide F, 3-L-leucine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂) $\stackrel{O}{_{3}}$ NH Me $\stackrel{O}{_{R}}$ NH $\stackrel{O}{_{1-Pr}}$ $\stackrel{R}{_{N}}$ NH $\stackrel{O}{_{N}}$ NH $\stackrel{O}{_{N}$

PAGE 1-B

RN 847833-96-9 HCAPLUS CN Kahalalide F, 3-D-valine- (9CI) (CA INDEX NAME) Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847833-97-0 HCAPLUS CN Kahalalide F, 3-L-proline- (9CI) (CA INDEX NAME)

RN 847833-98-1 HCAPLUS CN Kahalalide F, 3-L-glutamine- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

(CH₂) 3

NΗ

RN 847833-99-2 HCAPLUS CN Kahalalide F, 3-L-ornithine- (9CI) (CA INDEX NAME)

RN 847834-00-8 HCAPLUS

CN Kahalalide F, 3-L-threonine- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN

847834-01-9 HCAPLUS Kahalalide F, 3-L-glutamic acid- (9CI) (CA INDEX NAME) CN

PAGE 1-B

RN 847834-02-0 HCAPLUS

CN 2-13-Kahalalide F, 2-[N-(5-methyl-1-oxohexyl)-L-alanine]- (9CI) (CA INDEX NAME)

RN 847834-03-1 HCAPLUS CN 2-13-Kahalalide F, 2-[N-(5-methyl-1-oxohexyl)glycine]- (9CI) (CA INDEX NAME)

RN 847834-04-2 HCAPLUS

Arrive

CN 2-13-Kahalalide F, 2-[N-(5-methyl-1-oxohexyl)-L-leucine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-05-3 HCAPLUS

CN 2-13-Kahalalide F, 2-[1-[(4S)-4-methyl-1-oxohexyl]-L-proline]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-06-4 HCAPLUS CN 2-13-Kahalalide F, 2-[N-(5-methyl-1-oxohexyl)-L-glutamic acid]- (9CI) (CA INDEX NAME)

RN 847834-07-5 HCAPLUS

CN 2-13-Kahalalide F, 2-[N2-(5-methyl-1-oxohexyl)-L-ornithine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-08-6 HCAPLUS

CN 2-13-Kahalalide F, 2-[N2-(5-methyl-1-oxohexyl)-L-glutamine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-09-7 HCAPLUS
CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-5-L-proline- (9CI)
(CA INDEX NAME)

847834-12-2 HCAPLUS RN $Kahalalide \ F, \ 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-5-[(5R)-5-phenyl-L-methyl-L-met$ CN proline] - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

847834-17-7 HCAPLUS RNCN

Kahalalide F, 12-(2-amino-2-butenoic acid) - (9CI) (CA INDEX NAME) Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-B

RN 847834-19-9 HCAPLUS CN enantio-Kahalalide F (9CI) (CA INDEX NAME)

Page 72

RN

847834-20-2 HCAPLUS Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(3,4-dichloro-L-phenylalanine)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

Me Me Pr-i O Me Cl
$$Z H M$$
 O $Z H M$ O $Z H$ O Z O Z O Z O

RN847834-21-3 HCAPLUS CNKahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(2,3,4,5,6pentafluoro-L-phenylalanine) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

847834-22-4 HCAPLUS RN

Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(4-iodo-L-CNphenylalanine) - (9CI) (CA INDEX NAME)

RN 847834-23-5 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(4-nitro-L-phenylalanine)- (9CI) (CA INDEX NAME)

RN 847834-24-6 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(4-fluoro-L-phenylalanine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Et S O CH2)3 NH2

Et S O (CH2)3 NH2

PAGE 1-B

RN 847834-25-7 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(O-methyl-L-tyrosine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-28-0 HCAPLUS

CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-L-tyrosine-(9CI) (CA INDEX NAME)

Me Me Ne Pr-i O Me
$$Z H$$
 O O $Z H$ O OH Z

RN 847834-30-4 HCAPLUS
CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-11-(N-methyl-L-phenylalanine)- (9CI) (CA INDEX NAME)

RN 847834-31-5 HCAPLUS CN Kahalalide F, 11-(2-chloro-L-phenylalanine) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

0.171715

PAGE 1-B

RN 847834-32-6 HCAPLUS CN Kahalalide F, 11-(3-chloro-L-phenylalanine) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-33-7 HCAPLUS CN Kahalalide F, 11-(4-chloro-L-phenylalanine)- (9CI) (CA INDEX NAME)

RN 847834-34-8 HCAPLUS
CN Kahalalide F, 11-(3,4-difluoro-L-phenylalanine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂) 3 NH Me R S NH i-Pr S NH

PAGE 1-B

RN 847834-35-9 HCAPLUS

CN Kahalalide F, 11-[3-(2-naphthalenyl)-L-alanine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Audet 10_531537

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

$$(CH_2)_3$$
 O
 $(CH_2)_3$ O
 $(CH_2)_3$
 $($

RN 847834-36-0 HCAPLUS

CN Kahalalide F, 11-(3-[1,1'-biphenyl]-4-yl-L-alanine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$ NH $\stackrel{\circ}{_{NH}}$ NH $\stackrel{\circ}{_{NH}}$ NH $\stackrel{\circ}{_{NH}}$ NH $\stackrel{\circ}{_{NH}}$ NH $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$

PAGE 1-B

RN 847834-38-2 HCAPLUS

CN Kahalalide F, 1-[N-[1-oxo-3-[4-(trifluoromethyl)phenyl]-2-propenyl]-D-valine]-11-(3,4-dichloro-L-phenylalanine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

Audet 10_5°1533 udeti 115-15

PAGE 1-C

__C1

847834-46-2 HCAPLUS

RN CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]-, trifluoroacetate (ester) (9CI) (CA INDEX NAME)

PAGE 1-A

RN 847834-52-0 HCAPLUS CN Kahalalide F, 1-[N-[$(3\alpha,5\beta)$ -24-oxo-3-[(trifluoroacetyl)oxy]cholan-24-yl]-D-valine]-, trifluoroacetate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

CF₃

RN 847834-54-2 HCAPLUS

CN Kahalalide F, 1-[N,N-bis(1-oxoheptyl)-D-valine]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 847834-59-7 HCAPLUS

CN Kahalalide F, 1-[N-[(2 α ,3 β)-2,3-dihydroxy-28-oxoolean-12-en-28-yl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

ide*

PAGE 1-C

RN

4 2

847834-61-1 HCAPLUS Kahalalide F, 1-[N-[(3 β)-3-hydroxy-28-oxoolean-12-en-28-yl]-D-valine]-CN(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

PAGE 1-B

PAGE 1-C

Page 89

RN 847834-63-3 HCAPLUS

CN Kahalalide F, 1-[N-[1-(methylamino)ethylidene]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-65-5 HCAPLUS

CN Kahalalide F, 7-D-isoleucine- (9CI) (CA INDEX NAME)

.∴et.

Me₂CH (CH₂) 3 NH R S NH i-Pr S NH

PAGE 1-B

PAGE 1-A

RN 847834-67-7 HCAPLUS CN Kahalalide F, 7-D-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Me₂CH (CH₂) 3 NH Me R S NH
$$i-Pr$$
 S NH $i-Pr$ S NH $i-Pr$ S NH

RN 847834-68-8 HCAPLUS

CN Kahalalide F, 5-L-proline-6-D-ornithine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B.

RN 847834-69-9 HCAPLUS

CN L-Valine, N-(5-methyl-1-oxohexyl)-D-valyl-L-threonyl-L-cysteinyl-D-valyl-D-prolyl-L-ornithyl-D-cysteinyl-D-allothreonyl-D-alloisoleucyl-D-valyl-L-phenylalanyl-(2Z)-2-amino-2-butenoyl-, (13→8)-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 847834-70-2 HCAPLUS

CN L-Valine, N-(5-methyl-1-oxohexyl)-D-valyl-L-threonyl-L-valyl-D-cysteinyl-D-prolyl-L-ornithyl-D-cysteinyl-D-allothreonyl-D-alloisoleucyl-D-valyl-L-phenylalanyl-(2Z)-2-amino-2-butenoyl-, (13→8)-lactone (9CI) (CA INDEX NAME)

RN 847834-71-3 HCAPLUS

CN L-Valine, N-(5-methyl-1-oxohexyl)-D-valyl-L-threonyl-L-valyl-D-homocysteinyl-D-prolyl-L-ornithyl-D-homocysteinyl-D-allothreonyl-D-alloisoleucyl-D-valyl-L-phenylalanyl-(2Z)-2-amino-2-butenoyl-, (13→8)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 847834-72-4 HCAPLUS CN Kahalalide F, 13-D-valine- (9CI) (CA INDEX NAME)

Page 95

847834-73-5 HCAPLUS RNKahalalide F, 2-glycine- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry. Double bond geometry as shown.

11

PAGE 1-B

847834-74-6 HCAPLUS RN

CNKahalalide F, 2-L-alanine- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 847834-75-7 HCAPLUS CN Kahalalide F, 2-L-leucine- (9CI) (CA INDEX NAME)

RN 847834-76-8 HCAPLUS CN Kahalalide F, 2-L-phenylalanine- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 847834-77-9 HCAPLUS CN Kahalalide F, 2-L-glutamic acid- (9CI) (CA INDEX NAME)

RN 847834-78-0 HCAPLUS CN Kahalalide F, 2-L-ornithine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

13

PAGE 1-A

PAGE 1-B

RN 847834-79-1 HCAPLUS

CN Kahalalide F, 2-L-proline- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

RN 847834-80-4 HCAPLUS

CN Kahalalide F, 1-[N2-(5-methyl-1-oxohexyl)-L-ornithine]- (9CI) (CA INDEX NAME)

Page 101

Audet 10_531523

PAGE 1-B

RN 847834-81-5 HCAPLUS CN Kahalalide F, 2-L-glutamine- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

RN 847901-22-8 HCAPLUS

Kahalalide F, 1-[N-[(4-methylcyclohexyl)acetyl]-D-valine]- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

IT 149204-42-2, Kahalalide F

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of kahalalide F analogs as antitumor agents)

RN

149204-42-2 HCAPLUS Kahalalide F (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:206820 HCAPLUS

DOCUMENT NUMBER: 143:19397

TITLE: Phase I clinical and pharmacokinetic study of

kahalalide F in patients with advanced androgen

refractory prostate cancer

AUTHOR(S): Rademaker-Lakhai, Jeany M.; Horenblas, Simon;

Meinhardt, Willem; Stokvis, Ellen; de Reijke, Theo M.;

Jimeno, Jose M.; Lopez-Lazaro, Luis; Lopez Martin,

Jose A.; Beijnen, Jos H.; Schellens, Jan H. M.

CORPORATE SOURCE: The Netherlands Cancer Institute, Amsterdam, 1066 EC,

Neth.

SOURCE: Clinical Cancer Research (2005), 11(5), 1854-1862

CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

AB The purpose is to determine the maximum tolerated dose, profile of adverse events,

and dose-limiting toxicity of Kahalalide F (KF) in patients with androgen refractory prostate cancer. Furthermore, the pharmacokinetics after KF administration and preliminary antitumor activity were evaluated. KF is a

dehydroaminobutyric acid-containing peptide isolated from the marine herbivorous mollusk, Elysia rufescens. Adult patients with advanced or metastatic androgen refractory prostate cancer received KF as an i.v. infusion over 1 h, during five consecutive days every 3 wk. The starting dose was 20 µg per m2 per day. Clin. pharmacokinetics studies were done in all patients using noncompartmental anal. Prostate-specific antigen levels were evaluated as a surrogate marker for activity against prostate cancer. Thirty-two patients were treated at nine dose levels (20-930 µg per m2 per day). The maximum tolerated dose on this schedule was 930 μg per m2 per day. The dose-limiting toxicity was reversible and asymptomatic Common Toxicity Criteria grade 3 and 4 increases in transaminases. The recommended dose for phase II studies is 560 µg per m2 per day. Pharmacokinetics anal. revealed dose linearity up to the recommended dose. Thereafter, a more than proportional increase was observed Elimination was rapid with a mean (SD) terminal half-life (t1/2) of 0.47 h (0.11 h). One patient at dose level 80 μg per m2 per day had a partialresponse with a prostate-specific antigen decline by at least 50% for ≥4 wk. Five patients showed stable disease. KF can be given safely as a 1-h i.v. infusion during five consecutive days at a dose of 560 μg per m2 per day once every 3 wk.

IT 149204-42-2, Kahalalide F

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phase I trial of KF showed MTD to be 930 µg per m2 per day, grade 3, 4 transaminase elevation as DLT and recommended phase II dose to be 560 µg per m2 per day for patient with advanced androgen refractory prostate cancer)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS 31 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

2005:144032 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 142:388504

Stable isotopically labeled internal standards in TITLE:

quantitative bioanalysis using liquid

chromatography/mass spectrometry: necessity or not?

Stokvis, Ellen; Rosing, Hilde; Beijnen, Jos H. AUTHOR(S):

Department of Pharmacy & Pharmacology, Slotervaart CORPORATE SOURCE:

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE: Rapid Communications in Mass Spectrometry (2005),

19(3), 401-407

CODEN: RCMSEF; ISSN: 0951-4198

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

It appears to be a general belief that stable isotopically labeled (SIL) internal stds. yield better assay performance results for quant. bioanal. liquid chromatog./mass spectrometry (LC/MS) assays than does any other internal standard In this article we describe our experiences with structural analogs and SIL internal stds. and their merits and demerits. SIL internal stds. are the first choice, but deuterium-labeled compds. may demonstrate unexpected behavior, such as different retention times or recoveries, than the analyte. In addition, a SIL internal standard with identical chemical properties as the analyte may cover up assay problems with stability, recovery, and ion suppression. Since SIL internal stds. are not always available or are very expensive, structural analogs can be used, however, with consideration of several issues, which are usually displayed during method validation.

149204-42-2, Kahalalide F IT

RL: ANT (Analyte); ANST (Analytical study)

(stable isotopically labeled internal stds. in quant. bioanal. using liquid chromatog./mass spectrometry)

149204-42-2 HCAPLUS RN

Kahalalide F (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂) 3 NH Me R S NH
$$i-Pr$$
 R $i-Pr$ R $i-Pr$ R $i-Pr$ NH $i-Pr$ S $i-Pr$ NH

IT 353491-55-1 782486-09-3

RL: BSU (Biological study, unclassified); BIOL (Biological study) (stable isotopically labeled internal stds. in quant. bioanal. using liquid chromatog./mass spectrometry)

RN 353491-55-1 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxobutyl)-D-valine]- (9CI) (CA INDEX NAME)

RN 782486-09-3 HCAPLUS CN Kahalalide F, 3-(L-valine-2,3,4,4,4,4',4',4'-d8)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:136757 HCAPLUS

DOCUMENT NUMBER: 143:318056

TITLE: Applications of products from marine organisms

AUTHOR(S): Nuijen, B.; den Brok, M. W. J.; Manada, C.; Bult, A.;

Beijnen, J. H.

CORPORATE SOURCE: Nederlands Kankerinstituut, Amsterdam, Neth.

SOURCE: Pharmaceutisch Weekblad (2005), 140(3), 104-109

CODEN: PHWEAW; ISSN: 0031-6911

PUBLISHER: Koninklijke Nederlandse Maatschappij ter Bevordering

der Pharmacie

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Dutch

AB A review of antitumor agents derived from marine organisms. The drugs aplidine (from Aplidium albicans), kahalalide F (from Elysia rufescens),

and ES-285 (from Spisula polynyma) are examined in detail.

IT 149204-42-2, Kahalalide F

RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL

(Biological study); OCCU (Occurrence); USES (Uses)

(antitumor applications of products from marine organisms)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

L12 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:95095 HCAPLUS

DOCUMENT NUMBER: 143:52574

TITLE: Technology evaluation: Kahalalide F, PharmaMar

AUTHOR(S): Hamann, Mark T.

CORPORATE SOURCE: The School of Pharmacy and Department of Chemistry and

Biochemistry, University of Mississippi, MS, 38677,

USA

SOURCE: Current Opinion in Molecular Therapeutics (2004),

6(6), 657-665

CODEN: CUOTFO; ISSN: 1464-8431

PUBLISHER: Thomson Scientific DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Kahalalide F is a depsipeptide under development by PharmaMar as a potential treatment for solid tumors. It is currently undergoing

phase II clin. trials.
IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(phase II clin. trial of kahalalide F showed anticancer activity

against solid tumors in human) RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{N}}$ NH $\stackrel{\circ}{_{N}$

PAGE 1-B

REFERENCE COUNT:

51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:34709 HCAPLUS

DOCUMENT NUMBER:

142:100283

TITLE:

Combination of hemocyanin from spiders with dolastatine form Dolabella for the treatment of

prostate cancer

INVENTOR(S):

Weickmann, Dirk

PATENT ASSIGNEE(S):

Toximed G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005002494	A2	20050113	WO 2004-DE1386	20040701
WO 2005002494	A3	20050224		

.215

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,

SN, TD, TG

DE 10329847 A1 20050120 DE 2003-10329847 20030702

PRIORITY APPLN. INFO.: DE 2003-10329847 A 20030702

The invention concerns a combination of (a) hemocyanin from the hemolymphs of certain bird-eating spiders; (b) substances that are antagonists, synergists, and penetration enhancers to hemocyanin and that are obtained from the fractionation of spider venoms; (c) dolastatine form Dolabella auricularia or a preparation named Kahalalide F from Elysia rufescens. Hemocyanine, antagonists, synergists, and penetration enhancers are isolated by various chromatog. methods; the fractions or their mixts. are lyophilized for storage. For formulation, isotonic solution, buffer, albumin, glutamine, antimicrobial agent, etc. are added.

IT 149204-42-2P, Kahalalide F

RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(combination of hemocyanin from spiders with dolastatine form Dolabella for treatment of prostate cancer)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

L12 ANSWER 22 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:740175 HCAPLUS

DOCUMENT NUMBER:

141:236712

TITLE:

Use of kahalalide compounds for the manufacture of a

medicament for the treatment of psoriasis

INVENTOR(S):

Izquierdo Delso, Miguel Angel

PATENT ASSIGNEE(S):

Pharma Mar, S.A.U., Spain; Ruffles, Graham Keith

SOURCE:

PCT Int. Appl., 23 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

			APPLICATION NO.						
			WO 2004-GB757						
	W: AE, AG, AL	, AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,					
	CN, CO, CR	, CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,					
	GE, GH, GM	, HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,					
	LK, LR, LS	, LT, LU, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NA, NI					
	RW: BW, GH, GM	, KE, LS, MW, MZ,	SD, SL, SZ, TZ, UG,	ZM, ZW, AT, BE,					
	BG, CH, CY	, CZ, DE, DK, EE,	ES, FI, FR, GB, GR,	HU, IE, IT, LU,					
	MC, NL, PI	, RO, SE, SI, SK,	TR, BF, BJ, CF, CG,	CI, CM, GA, GN,					
		, MR, NE, SN, TD,							
	AU 2004216443	A1 20040910	AU 2004-216443	20040226					
			CA 2004-2516458						
	EP 1596879	A1 20051123	51123 EP 2004-714847 20040226						
	R: AT, BE, CH	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,					
	IE, SI, LT	, LV, FI, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, SK					
]	PRIORITY APPLN. INFO.:		GB 2003-4367	A 20030226					
			WO 2004-GB757						
1	AB Kahalalide compds.	, in particular ka	ahalalide F, are of u	use in a method to					
	treat a mammal suf	fering from skin o	disease with avoiding	g toxicity and					
	leading to clin. i	mprovement.							
	IT 149204-42-2, Kahal	alide f							
	RL: PAC (Pharmacol	ogical activity);	THU (Therapeutic use	e); BIOL					
	(Biological study)								
	(kahalalide com	pds. for the treat	tment of psoriasis)						
]	RN 149204-42-2 HCAPL	US							
(CN Kahalalide F (9CI)	(CA INDEX NAME)							

PAGE 1-A

PAGE 1-B

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 23 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:654292 HCAPLUS

DOCUMENT NUMBER: 141:374378

TITLE: Switching from an analogous to a stable isotopically

labeled internal standard for the LC-MS/MS

quantitation of the novel anticancer drug Kahalalide F

significantly improves assay performance

AUTHOR(S): Stokvis, E.; Rosing, H.; Lopez-Lazaro, L.; Schellens,

J. H. M.; Beijnen, J. H.

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, The

Netherlands Cancer Institute, Slotervaart Hospital,

Amsterdam, 1066 EC, Neth.

SOURCE: Biomedical Chromatography (2004), 18(6), 400-402

CODEN: BICHE2; ISSN: 0269-3879

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The importance of a stable isotopically labeled (SIL) internal standard for the quant. LC-MS/MS assay for Kahalalide F in human plasma is highlighted. Similar results can be expected for other LC-MS/MS assays. Therefore, we emphasize the need for an SIL internal standard for accurate and precise LC-MS/MS assays of drugs in biol. matrixes.

IT 149204-42-2, Kahalalide F

RL: ANT (Analyte); ANST (Analytical study)
(switching from an analogous to a stable isotopically labeled internal standard for the LC-MS/MS quantitation of the novel anticancer drug

Kahalalide F significantly improves assay performance)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

IT 353491-55-1 782486-09-3

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (switching from an analogous to a stable isotopically labeled internal standard for the LC-MS/MS quantitation of the novel anticancer drug Kahalalide F significantly improves assay performance)

RN 353491-55-1 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxobutyl)-D-valine]- (9CI) (CA INDEX NAME)

RN 782486-09-3 HCAPLUS CN Kahalalide F, 3-(L-valine-2,3,4,4,4,4',4',4'-d8)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

5

ACCESSION NUMBER:

2004:354967 HCAPLUS

DOCUMENT NUMBER:

INVENTOR(S):

140:357671

TITLE:

Preparation of kahalalide antitumoral compounds Faircloth, Glynn Thomas; Elices, Mariano; Sasak,

Halina; Aviles Marin, Pablo Manuel; Cuevas Marchante,

Maria Del Carmen

PATENT ASSIGNEE(S):

Pharma Mar, S.A.U., Spain

SOURCE:

PCT Int. Appl., 34 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE			APPLICATION NO.						DATE				
WO 2004035613 WO 2004035613					A2 20040429 A3 20040729		,	WO 2003-US33207					20031020				
		CO, GH, LR, OM, TN, GH,	CR, GM, LS, PG, TR, GM,	CU, HR, LT, PH, TT, KE,	CZ, HU, LU, PL, TZ, LS,	DE, ID, LV, PT, UA, MW,	AU, DK, IL, MA, RO, UG, MZ, TM,	DM, IN, MD, RU, US, SD,	DZ, IS, MG, SC, UZ, SL,	EC, JP, MK, SD, VC, SZ,	EE, KE, MN, SE, VN, TZ,	EG, KG, MW, SG, YU, UG,	ES, KP, MX, SK, ZA, ZM,	FI, KR, MZ, SL, ZM, ZW,	GB, KZ, NI, SY, ZW AM,	GD, LC, NO, TJ,	GE, LK, NZ, TM,
WO.	2002	BF,	ВJ,	CF,	CG,	CI,	IE, CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
WO	2003(W:	AE, CO, GM, LS, PL,	AG, CR, HR, LT, PT,	AL, CU, HU, LU, RO,	AM, CZ, ID, LV, RU,	AT, DE, IL, MA, SD,	AU, DK, IN, MD, SE, VN,	AZ, DM, IS, MG, SG,	BA, DZ, JP, MK, SI,	BB, EC, KE, MN, SK,	BG, EE, KG, MW, SL,	BR, ES, KP, MX,	BY, FI, KR, MZ,	BZ, GB, KZ, NO,	CA, GD, LC, NZ,	CH, GE, LK, OM,	CN, GH, LR, PH,
•	R₩:	GH, KG, FI,	GM, KZ, FR,	KE, MD, GB,	LS, RU, GR,	MW, TJ, IE,	MZ, TM, IT, GQ,	SD, AT, LU,	SL, BE, MC,	SZ, BG, NL,	TZ, CH, PT,	CY, SE,	CZ, SK,	DE, TR,	DK,	EE,	ES,

Audet 10_531533

CA 250	1089	A.F	20040429	CA 2003-2501089		20031020
AU 200	3285911	A1	20040504	AU 2003-285911		20031020
BR 200	3015489	Α	20050823	BR 2003-15489		20031020
EP 157	2726	A2	20050914	EP 2003-779140		20031020
R:	AT, BE,	CH, DE,	DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE	, MC, PT,
	IE, SI,	LT, LV,	FI, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU	, SK
JP 200	6517195	T2	20060720	JP 2005-501483		20031020
NO 200	5002379	Α	20050715	NO 2005-2379		20050513
PRIORITY A	PLN. INFO	.:		WO 2002-GB4735	Α	20021018
				GB 2003-4367	Α	20030226
				GB 2003-14725	Α	20030624
				US 2001-348449P	P	20011019
				WO 2001-GB4821	A	20011031
				GB 2002-22409	Α	20020926
				WO 2003-US33207	W	20031020

AB The invention is directed to new kahalalide antitumoral compds., in particular to analogs of kahalalide F, which are useful as antitumoral, antiviral and antifungal agents and in the treatment of psoriasis. Thus, kahalalide F analogs in which the 5-methylhexanoc acid residue has been replaced by (S) - and (R) -4-methylhexanoic acid were prepared and assayed for cytotoxic activity against various cell lines.

IT 149204-42-2DP, Kahalalide f, analogs 681272-30-0P
681272-31-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of kahalalide antitumoral compds.)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

RN 681272-30-0 HCAPLUS
CN Kahalalide F, 1-[N-[(4S)-4-methyl-1-oxohexyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 681272-31-1 HCAPLUS

CN Kahalalide F, 1-[N-[(4R)-4-methyl-1-oxohexyl]-D-valine]- (9CI) (CA INDEX NAME)

: =

Absolute stereochemistry.

Double bond geometry as shown.

, 3

PAGE 1-B

Me Me Pr-i O Me Z H N Ph
$$R$$
 R H N R N Ph R S Me R N Ph R N Ph R Me

L12 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004

2004:28665 HCAPLUS

DOCUMENT NUMBER:

141:140738

TITLE:

Conformational analysis of natural marine cyclopeptides with anti-tumor properties

AUTHOR(S):

Giralt, Ernest; Gairi, Margarida; Salvatella, Xavier; Rodriguez-Mias, Ricard Aleix; Jimenez, Jose Carlos; Lopez-Macia, Angel; Caba, Josep Maria; Cardenas, Francisco; Feliz, Miguel; Lloyd-Williams, Paul;

Albericio, Fernando

CORPORATE SOURCE:

Institut de Recerca Biomedica de Barcelona (IRBB-PCB),

SOURCE:

Universitat de Barcelona, Barcelona, 08028, Spain Peptides 2002, Proceedings of the European Peptide Symposium, 27th, Sorrento, Italy, Aug. 31-Sept. 6, 2002 (2002), 758-759. Editor(s): Benedetti, Ettore; Pedone, Carlo. Edizioni Ziino: Castellammare di

Stabia, Italy.

CODEN: 69EYXG; ISBN: 88-900948-1-8

DOCUMENT TYPE: LANGUAGE: Conference English

AB A symposium report. Conformations of three natural marine cyclopeptides (aplidine, kahalalide F and trunkamide A) with antitumor properties are

studied using NMR and mol. dynamics calcns. Aplidine exists in CHCl3 as an approx. 1:1 mixture of two slowly interconverting conformations. These conformational changes have no implications in the conformation of the ring that is a very well-defined eight-shaped macrocycle stabilized by a transannular hydrogen bond. Kahalalide F, a depsipeptide, has a flexible tail and a quite rigid macrocycle. Conformation of trunkamide A is observed to be very rigid, dominated by the volume of the dimethylallyl side chains, includes two trans-annular hydrogen bonds, and has two conformationally-restricted residues in the primary structure.

IT 149204-42-2, Kahalalide F

RL: PRP (Properties)

(NMR anal. and mol. dynamics simulations of conformations of marine cyclopeptides with antitumor properties)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

3

ACCESSION NUMBER: 2003:861296 HCAPLUS

DOCUMENT NUMBER: 140:77392

TITLE: Stereochemistry of Kahalalide F

Audet 10 531533

AUTHOR(S): Bonnard, Isabelle; Manzanares, Ignacio; Rinehart,

Kenneth L.

CORPORATE SOURCE: Roger Adams Laboratory, Department of Chemistry,

University of Illinois at Urbana-Champaign, Urbana,

IL, 61801, USA

SOURCE: Journal of Natural Products (2003), 66(11), 1466-1470

CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:77392

AB The stereochem. of the amino acids in the marine-derived cyclic depsipeptide kahalalide F has been defined by a series of degradation reactions (hydrolysis, ozonolysis, Edman degradation, and Marfey derivatization), yielding smaller fragments of the marine natural product. The results from these reactions agree with the structure originally proposed by Hamann and Scheuer and with the same stereochem. of most of the component amino acids more recently proposed by Goetz, Yoshida, and Scheuer. However, our assignments of D-Val3 and L-Val4 are the reverse of previous assignments made as L-Val3 and D-Val4. The present (reversed) stereochem. is crucial for the antitumor activity of kahalalide F.

IT 149204-42-2, Kahalalide F

RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent) (stereochem. detns. for valines3,4 of kahalalide F via hydrolysis, ozonolysis, Edman degradation, and Marfey derivatization reactions)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

IT 639819-39-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (stereochem. detns. for valines3,4 of kahalalide F via hydrolysis, ozonolysis, Edman degradation, and Marfey derivatization reactions)

RN 639819-39-9 HCAPLUS

CN L-Valine, L-threonyl-L-valyl-D-valyl-D-prolyl-L-ornithyl-D-alloisoleucyl-D-allothreonyl-D-alloisoleucyl-D-valyl-L-phenylalanyl-(2Z)-2-amino-2-butenoyl-, (12→7)-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

Audet 10 531533

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:848751 HCAPLUS

DOCUMENT NUMBER: 140:385585

TITLE: In vitro toxicity of three new antitumoral drugs

(trabectedin, aplidin, and kahalalide F) on hematopoietic progenitors and stem cells

hematopoletic progenitors and stem cells

AUTHOR(S): Gomez, Susana G.; Bueren, Juan A.; Faircloth, Glynn

T.; Jimeno, Jose; Albella, Beatriz

CORPORATE SOURCE: PharmaMar, Madrid, Spain

SOURCE: Experimental Hematology (New York, NY, United States)

(2003), 31(11), 1104-1111

CODEN: EXHMA6; ISSN: 0301-472X

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

AR Objective: In addition to neutropenias and/or thrombocytopenias as a short-term effect, antineoplastics also can produce long-term effects as a consequence of damage to the hematopoietic stem cells. The aim of the present study was to evaluate the toxicity of three marine-derived antineoplastics on murine hematopoietic stem cells. These antitumoral compds. currently are being evaluated in patients in phase II (aplidin and kahalalide F) and phase II/III (trabectedin) clin. trials. Materials and methods: Long-term competitive repopulating assays were performed in mice to analyze toxic effects on the hematopoietic stem cells responsible for the multipotential long-term repopulation of hematopoiesis. Furthermore, granulocytic and T- and B-lymphoid lineages were studied, as well as myeloid (CFU-GM) and megakaryocytic (CFU-Meg) progenitors. Results: When cells were treated in vitro for 24 h with CFU-GM IC50 dose of trabectedin $(9.59 \pm 4.96 \text{ nM})$, no significant effects were observed in the stem cells. The dose of trabectedin that produced 90% of inhibition in CFU-GM (IC90: 23.71 ± 1.27 nM) only inhibited 45% survival of stem cells. Doses of aplidin that produced redns. of 50% (56.9 \pm 13.32 nM) or 90% (195.88 \pm 21.39 nM) in myeloid progenitors did not show any effect on hematopoietic stem cells. Kahalalide F did not show any toxic effect in either short-term or long-term repopulating cells up to 10 μM . Conclusions. Our data show that the hematopoietic stem cells effects of antitumoral drugs can be properly characterized by the murine competitive repopulating assays. Our results suggest that long-term myelosuppression as a consequence of trabectedin, aplidin, or kahalalide F treatment would not be expected.

IT 149204-42-2, Kahalalide F

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (study of effect of antitumoral drugs trabectedin, kahalalide F, aplidin on murine hematopoietic stem cells)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$

PAGE 1-B

REFERENCE COUNT:

THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2006 ACS on STN L12 ANSWER 28 OF 59

51

2003:800266 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

140:156903

TITLE:

Kahalalide F, a new marine-derived compound, induces

AUTHOR (S):

oncosis in human prostate and breast cancer cells Suarez, Yajaira; Gonzalez, Laura; Cuadrado, Ana; Berciano, Maite; Lafarga, Miguel; Munoz, Alberto

CORPORATE SOURCE:

Pharma Mar S.A., Instituto de Investigaciones Biomedicas "Alberto Sols", Consejo Superior de

Investigaciones Cientificas-Universidad Autonoma de

Madrid, Madrid, Spain

SOURCE:

Molecular Cancer Therapeutics (2003), 2(9), 863-872

CODEN: MCTOCF; ISSN: 1535-7163

PUBLISHER:

American Association for Cancer Research

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Kahalalide F (KF) is a novel antitumor drug of marine origin under clin. AB investigation. KF showed a potent cytotoxic activity against a panel of human prostate and breast cancer cell lines, with IC50 ranging from 0.07 μM (PC3) to 0.28 μM (DU145, LNCaP, SKBR-3, BT474, MCF7). Importantly, nontumor human cells (MCF10A, HUVEC, HMEC-1, IMR90) were 5-40 times less sensitive to the drug (IC50 = 1.6-3.1 μM). KF cytotoxicity

did not correlate with the expression level of the multidrug resistance MDR1 and of the Tyr kinase HER2/NEU, and only slightly by the anti-apoptotic BCL-2 protein. KF action was triggered rapidly by short pulse treatments (15 min caused 50% maximum cytotoxicity). Neither a general caspase inhibitor (Z-VAD-fmk) nor transcription or translation inhibitors (actinomycin D, cycloheximide) blocked KF action. Flow cytometry anal. revealed that KF induced neither cell-cycle arrest nor apoptotic hypodiploid peak. Using mitochondrial (JC-1) - and lysosomal (LysoTracker Green, Acridine Orange)-specific fluorophores, the authors detected loss of mitochondrial membrane potential and of lysosomal integrity following KF treatment. Confocal laser and electron microscopy revealed that KF-treated cells underwent a series of profound alterations including severe cytoplasmic swelling and vacuolization, dilation and vesiculation of the endoplasmic reticulum, mitochondrial damage, and plasma membrane rupture. In contrast, the cell nucleus showed irregular clumping of chromatin into small, condensed masses, while chromatin disappeared from other nuclear domains, but the nuclear envelope was preserved and no DNA degradation was detected. Together, these data indicate that KF induces cell death via oncosis preferentially in tumor cells.

IT 149204-42-2, Kahalalide F

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(kahalalide F, a new marine-derived compound, induces oncosis in human prostate and breast cancer cells)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:509479 HCAPLUS

DOCUMENT NUMBER: 140:146458

TITLE: Kahalalide F: synthesis and structural determination

AUTHOR(S): Lopez-Macia, Angel; Jimenez, Jose Carlos; Royo,

Miriam; Giralt, Ernest; Albericio, Fernando

CORPORATE SOURCE: Department of Organic Chemistry, University of

Barcelona, Barcelona, E-08028, Spain

SOURCE: Peptides 2000, Proceedings of the European Peptide

Symposium, 26th, Montpellier, France, Sept. 10-15, 2000 (2001), Meeting Date 2000, 245-246. Editor(s): Martinez, Jean; Fehrentz, Jean-Alain. Editions EDK:

Paris, Fr.

CODEN: 69EDWK; ISBN: 2-84254-048-4

DOCUMENT TYPE: Conference

LANGUAGE: English

AB A symposium report. Kahalalide F is a cyclic depsipeptide isolated from the Sacoglossan mollusc Elysia rufescens and the green alga Bryopsis sp. Kahalalide F and a diastereomer were prepared by the solid-phase method and

their structures determined by 1H NMR.

IT 149204-42-2P, Kahalalide f 354112-37-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis and structural determination of kahalalide F and diastereomer)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{N}}$ NH $\stackrel{\circ}{_{N}$

RN 354112-37-1 HCAPLUS CN Kahalalide F, 3-D-valine-4-L-valine- (9CI) (CA INDEX NAME)

RECORD

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

6

ACCESSION NUMBER:

2003:456011 HCAPLUS

DOCUMENT NUMBER:

REFERENCE COUNT:

139:390403

TITLE:

Development of marine-derived anti-cancer compounds

Taguchi, Tetsuo

CORPORATE SOURCE:

AUTHOR (S):

Osaka University, Japan

SOURCE:

Gan to Kagaku Ryoho (2003), 30(5), 579-588

CODEN: GTKRDX; ISSN: 0385-0684

PUBLISHER: DOCUMENT TYPE:

Gan to Kagaku Ryohosha Journal; General Review

LANGUAGE:

Japanese

AB A review. The marine environment offers a rich source of natural products with potential therapeutic application. Marine organisms have evolved the enzymic capability to produce potent chemical entitles that make them promising sources of innovative cytotoxic compds. Prominent in the identification and development of novel anti-cancer agents from marine sources is the Spanish biotechnol. company, Pharma Mar, which currently has a large number of oncol. products in late preclin. and clin. development. These include: Ecteinascidin-743 (ET-743), Aplidin, Kahalalide F and ES-285. Many of these innovative compds. have novel mechanisms of antitumor action that have yet to be fully elucidated.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(development of marine-derived anti-cancer compds.)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

L12 ANSWER 31 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:425678 HCAPLUS

DOCUMENT NUMBER: 140:111653

1415 to 50 575 1

TITLE: Solid-phase synthesis of marine cyclic peptides with

antitumoral activity

AUTHOR(S): Lopez-Macia, Angel; Caba, Josep M.; Jimenez, Jose C.;

Salvatella, Xavier; Varon, Sonia; Royo, Miriam; Rodriguez, Ignacio; Manzanares, Ignacio; Giralt,

Ernest; Albericio, Fernando

CORPORATE SOURCE: Department of Organic Chemistry, University of

Barcelona, Barcelona, 08028, Spain

SOURCE: Innovation and Perspectives in Solid Phase Synthesis &

Combinatorial Libraries: Peptides, Proteins and Nucleic Acids--Small Molecule Organic Chemistry Diversity, Collected Papers, International Symposium, 7th, Southampton, United Kingdom, Sept. 18-22, 2001

(2002), Meeting Date 2001, 13-16. Editor(s): Epton, Roger. Mayflower Worldwide Ltd.: Kingswinford, UK.

CODEN: 69DYT7; ISBN: 0-9515735-4-3

DOCUMENT TYPE: Conference LANGUAGE: English

AB A symposium report. Two cyclic peptides, kahalalide F and trunkamide A, were prepared by the solid phase method and are currently in clin. phase I and preclin. trials for treatment of cancer, resp. Kahalalide F is a

cyclic tridecapeptide containing an ester bond between two $\beta\text{-branched}$ and sterically hindered amino acids, didehydroamino butyric acid, and a hydrophobic sequence with two fragments containing several $\beta\text{-branched}$ amino acids in a row. Trunkamide A is a cyclic heptapeptide which contains hydroxy side-chain amino acids with the hydroxy function modified as dimethylallyl ethers and a thiazoline ring.

IT 149204-42-2P, Kahalalide F

RL: SPN (Synthetic preparation); PREP (Preparation)
 (solid-phase synthesis of marine cyclic peptides with antitumoral
 activity)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 32 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

5

ACCESSION NUMBER:

2003:319736 HCAPLUS

DOCUMENT NUMBER:

138:331673

TITLE: INVENTOR(S): Kahalalide compounds for use in cancer therapy Jimeno, Jose; Lopez, Lazaro Luis; Ruiz Casado, Ana; Izquierdo, Miquel Angel; Paz-Ares, Luis; Trigo, Jose

Manuel; Schellens, Jan

Audet 10_531533

PATENT ASSIGNEE(S): Pharma Mar, S.A., Spain; Ruffles, Graham Keith

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

MO 2003033012	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE					
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CM, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TM, TT, TT, TZ, WA, GG, KZ, MD, RU, TJ, TM, AT, BE, GB, GB, BR, BY, BZ, CA, CH, CM, PL, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TM, TT, TT, TZ, WA, MB, CG, CG, CI, CM, GA, GN, GQ, GM, ML, MR, NE, SN, TD, TG WO 2002036145										
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NO 2005002379	A	20050715	NO	2005-2379		20050513
PRIORITY APPLN. IN	IFO.:		US	2001-348449P	P	20011019
			WO	2001-GB4821	Α	20011031
			GB	2002-22409	Α	20020926
			US	2000-244471P	P	20001031
			US	2000-246229P	P	20001106
			WO	2002-GB4735	W	20021018
			GB	2003-4367	Α	20030226
			GB	2003-14725	Α	20030624
			WO	2003-US33207	W	20031020

OTHER SOURCE(S): MARPAT 138:331673

AB Procedures for clin. trials of kahalalide compds. are provided, leading to new formulations of kahalalide compds.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(kahalalide compds. for cancer therapy)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Audet 10_531533

L12 ANSWER 33 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

2003:170633 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 138:250145

TITLE: Marine natural products as prototype agrochemical

agents

Peng, Jiangnan; Shen, Xiaoyu; El Sayed, Khalid A.; AUTHOR (S):

Dunbar, D. Charles; Perry, Tony L.; Wilkins, Scott P.; Hamann, Mark T.; Bobzin, Steve; Huesing, Joseph; Camp, Robin; Prinsen, Mike; Krupa, Dan; Wideman, Margaret A.

Department of Pharmacognosy and National Center for CORPORATE SOURCE:

the Development of Natural Products, School of

Pharmacy, The University of Mississippi, University,

MS, 38677, USA

Journal of Agricultural and Food Chemistry (2003), SOURCE:

51(8), 2246-2252

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

In the interest of identifying new leads that could serve as prototype AΒ agrochem. agents, 18 structurally diverse marine-derived compds. were examined for insecticidal, herbicidal, and fungicidal activities. Several new classes of compds. have been shown to be insecticidal, herbicidal, and fungicidal, which suggests that marine natural products represent an

intriquing source for the discovery of new agrochem. agents.

IT 149204-42-2, Kahalalide F

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(insecticidal, herbicidal, and fungicidal activity of)

RN 149204-42-2 HCAPLUS

(CA INDEX NAME) Kahalalide F (9CI) CN

Absolute stereochemistry.

Double bond geometry as shown.

REFERENCE COUNT:

44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 34 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:779665 HCAPLUS

DOCUMENT NUMBER:

138:313796

TITLE:

Quantitative analysis of the novel depsipeptide anticancer drug Kahalalide F in human plasma by high-performance liquid chromatography under basic conditions coupled to electrospray ionization tandem

mass spectrometry

AUTHOR (S):

Stokvis, E.; Rosing, H.; Lopez-Lazaro, L.; Rodriguez, I.; Jimeno, J. M.; Supko, J. G.; Schellens, J. H. M.;

Beijnen, J. H.

CORPORATE SOURCE:

Department of Pharmacy and Pharmacology, Slotervaart Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE:

Journal of Mass Spectrometry (2002), 37(9), 992-1000

CODEN: JMSPFJ; ISSN: 1076-5174

PUBLISHER:

John Wiley & Sons Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Kahalalide F (KF) is a novel cyclic depsipeptide anticancer drug which has shown anticancer activity both in vitro and in vivo, especially against human prostate cancer cell lines. To characterize the pharmacokinetics of KF during a phase I clin. trial in patients with androgen-refractory prostate cancer, a method was developed and validated for the quant. anal. of KF in human plasma by HPLC coupled to pos. electrospray ionization tandem mass spectrometry (ESI-MS/MS). Microbore reversed-phase liquid chromatog. (LC) performed with mobile phases containing trifluoroacetic acid, an additive commonly used for separating peptides, resulted in substantial suppression of the signal for KF in ESI-MS/MS. An alternative approach employing a basic mobile phase provided an excellent response to KF when used in the pos. ion mode. Plasma samples were prepared for LC MS/MS by solid-phase extraction

on

C18 cartridges. The LC separation was performed on a Zorbax Extend C18 column (150 + 2.1 mm., particle size 5 μ m) with MeCN-10 mM aqueous NH3 (85:15) as the mobile phase, at a flow-rate of 0.20 mL/min. A butyric acid analog of KF was used as the internal standard The lower limit of quantitation when using a $500-\mu L$ sample volume was 1 ng/mL and the linear dynamic range extended to 1000 ng/mL. The interassay accuracy of the assay was -15.1% at the lower limit of quantitation and between -2.68 and -9.05% for quality control solns. ranging in concentration from 2.24 to 715 ng/mL. The interassay precision was 9.91% or better at these concns. The analyte was stable in plasma under all conditions evaluated and for a

Audet 10_531533

period of 16 h after reconstituting plasma exts. for LC anal. at ambient temperature

IT 149204-42-2, Kahalalide F

RL: ANT (Analyte); PKT (Pharmacokinetics); ANST (Analytical study); BIOL (Biological study)

(determination of Kahalalide F in human plasma by HPLC/tandem mass spectrometry)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 35 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:742571 HCAPLUS

DOCUMENT NUMBER: 139:62716

TITLE: Preclinical toxicity studies of kahalalide F, a new

anticancer agent: single and multiple dosing regimens

in the rat

AUTHOR(S): Brown, Alan P.; Morrissey, Robert L.; Faircloth, Glynn

T.; Levine, Barry S.

CORPORATE SOURCE: Toxicology Research Laboratory, University of Illinois

at Chicago, Chicago, IL, 60612, USA

Audet 10_531533 Andet 10

SOURCE: Cancer Chemotherapy and Pharmacology (2002), 50(4),

333-340

CODEN: CCPHDZ; ISSN: 0344-5704

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal LANGUAGE: English

AB Kahalalide F (KF) is a new anticancer agent currently in clin. trials for solid tumors, including prostate cancer. During the preclin. development of this drug, the studies reported here were conducted to determine the acute and multiple dose toxicities of KF when administered i.v. to rats. This dosing route is the intended route of clin. administration. KF was administered i.v. to male and female CD rats using single- and multiple-dose (daily for 5 days) schedules. Animals were observed for clin.

signs, and body weight, hematol., and clin. chemical parameters determined Animals

were necropsied, gross observations and organ wts. recorded, and numerous tissues were collected and examined microscopically. KF produced lethality at 375 and 450 μ g/kg in males and females, resp., and the maximum tolerated dose (MTD) was estimated to be 300 $\mu q/kq$ (1800 $\mu q/m2$). The nervous system appeared to be a potential site of action for the production of Single-dose administration of KF at 150 and 300 µg/kg produced organ toxicity in which the kidney was the primary target. Injury to distal convoluted tubules was the most toxicol. significant lesion, and was observed on day 4. However, by day 29, resolution of renal toxicity had occurred in the 150-µg/kg group, but only partial resolution was seen at 300 µg/kg. Renal injury correlated with increased serum creatinine, BUN, and kidney wts. at 300 µg/kg, indicating impairment of renal function. Subacute, necrotizing inflammation of bone marrow and peritrabecular osteocyte hyperplasia of bone were seen at 300 μg/kg on day 4, with recovery thereafter. Injury to blood vessels and surrounding tissue at the injection site were produced by KF, likely due to local cytotoxicity. In general, reversibility of toxicity was seen at 150 μq/kq but not at 300 μq/kq. When KF was administered once daily for five consecutive days at a dose of 80 µg/kg per day (400 µg/kg total dose), slightly decreased body weight gain was the primary drug-related Therefore, the no-adverse-effect dose was at or near 80 µq/kg per day (480 μg/m2 per day). These findings demonstrate that fractionation of a lethal or MTD dose of KF by daily administration for 5 days reduces drug-induced toxicity, and appears to be a viable option for the clin. evaluation of KF for the treatment of cancer.

IT 149204-42-2, Kahalalide F
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (preclin. toxicity studies of anticancer agent kahalalide F)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

REFERENCE COUNT:

13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 36 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:692319 HCAPLUS

DOCUMENT NUMBER:

138:271948

TITLE:

Solid-phase total syntheses of trunkamide A and kahalalide F, cyclic peptides of marine origin

AUTHOR(S):

Albericio, Fernando; Caba, Josep M.; Lopez-Macia, Angel; Jimenez, Jose C.; Carrascal, Marta; Sole, Laia; Rodriguez, Ignacio; Manzanares, Ignacio; Royo, Miriam;

Giralt, Ernest

CORPORATE SOURCE:

Department of Organic Chemistry, University of

Barcelona, Barcelona, E-08028, Spain

SOURCE:

Peptides: The Wave of the Future, Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001 (2001), 217-219. Editor(s): Lebl, Michal; Houghten, Richard A. American Peptide Society: San

Diego, Calif.

CODEN: 69DBAL; ISBN: 0-9715560-0-8

DOCUMENT TYPE: LANGUAGE:

Conference English

AB A symposium report. Two cyclic peptides of marine origin, Trunkamide A and Kahalalide F, were synthesized. Common features of both syntheses

include solid-phase peptide chain elongation using a quasi orthogonal protecting scheme with allyl, t-Bu, and fluorenyl based groups on a chlorotrityl resin.

IT 149204-42-2P, Kahalalide F

RL: SPN (Synthetic preparation); PREP (Preparation)

(solid-phase total syntheses of trunkamide A and kahalalide F, cyclic peptides of marine origin)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:521462 HCAPLUS

DOCUMENT NUMBER:

137:88442

TITLE:

Incensole and furanogermacrens and compounds in treatment for inhibiting neoplastic lesions and

microorganisms

INVENTOR(S):

Shanahan-Pendergast, Elisabeth

PATENT ASSIGNEE(S):

Ire.

SOURCE:

PCT Int. Appl., 68 pp.

CODEN: PIXXD2

Audet 10_531533

DOCUMENT TYPE:

Patent

LANGUAGE:

English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIN	KIND DATE			APPLICATION NO.							DATE			
WO	2002	0531	38		A2	20	0020	711	V	10	2002	2 - I	E1			2	0020	102	
WO	2002	0531	38		A3	20	0020	919											
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		UA,	UG,	US,	VN,	YU, F	RU,	TJ,	TM										
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		ML,	MR,	ΝE,	SN,	TD, T	ГG												
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		ΙE,	SI,	LT,	LV,	FI, F	RO,	MK,	CY,	AL	, TI	₹.							
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OTHER SOURCE(S): MARPAT 137:88442

AB The invention discloses the use of incensole and/or furanogermacrens, derivs. metabolites and precursors thereof in the treatment of neoplasia, particularly resistant neoplasia and immunodysregulatory disorders. These compds. can be administered alone or in combination with conventional chemotherapeutic, antiviral, antiparasite agents, radiation and/or surgery. Incensole and furanogermacren and their mixture showed antitumor activity against various human carcinomas and melanomas and antimicrobial activity against Staphylococcus aureus and Enterococcus faecalis.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceutical formulation further including; incensole and furanogermacrens and compds. as antitumor and antimicrobial agents)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Ameint

L12 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:353299 HCAPLUS

DOCUMENT NUMBER:

136:359641

TITLE:

Kahalalide F formulations for antitumor use

INVENTOR(S):

Ruffles, Graham Keith; Faircloth, Glynn Thomas; Nuyen,

Bastian; Weitman, Steve

PATENT ASSIGNEE(S):

Pharma Mar, S.A., Spain

SOURCE:

PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

		APPLICATION NO.				
WO 2002036145 WO 2002036145	A3 20021017	WO 2001-GB4821				
CO, CR, CU, GM, HR, HU, LS, LT, LU, PL, PT, RO,	AM, AT, AU, AZ, CZ, DE, DK, DM, ID, IL, IN, IS, LV, MA, MD, MG,	BA, BB, BG, BR, BY, BZ, DZ, EC, EE, ES, FI, GB, JP, KE, KG, KP, KR, KZ, MK, MN, MW, MX, MZ, NO, SI, SK, SL, TJ, TM, TR,	GD, GE, GH, LC, LK, LR, NZ, OM, PH,			
KZ, MD, RU, IE, IT, LU,	TJ, TM, AT, BE,	SL, SZ, TZ, UG, ZW, AM, CH, CY, DE, DK, ES, FI, TR, BF, BJ, CF, CG, CI, TG	FR, GB, GR,			
AU 2002010749	A5 20020515 A2 20030730	CA 2001-2425627 AU 2002-10749 EP 2001-978654	20011031			
IE, SI, LT, BR 2001014912 JP 2004512370 CN 1568192 NZ 525243 AT 314084 ES 2256305 CA 2462639 WO 20030333012	LV, FI, RO, MK, A 20031014 T2 20040422 A 20050119 A 20050128 E 20060115 T3 20060716 AA 20030424 A1 20030424	BR 2001-14912	20011031 20011031 20011031 20011031 20011031 20011031 20021018 20021018			
CO, CR, CU,	CZ, DE, DK, DM,	DZ, EC, EE, ES, FI, GB,	GD, GE, GH,			

Audet 10_531533

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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                20040714 EP 2002-801430
     EP 1435990
                          A1
                                                                    20021018
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                20040723
                                            ZA 2003-3136
                                                                    20030423
     ZA 2003003136
                          Α
                                            NO 2003-1860
                                                                    20030425
     NO 2003001860
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                                20030630
                                            US 2003-399571
     US 2004067895
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                                20040408
                                                                    20031114
                                            US 2000-244471P
PRIORITY APPLN. INFO.:
                                                                    20001031
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                                            US 2000-246229P
                                                                    20001106
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                                            US 2001-348449P
                                                                 Ρ
                                                                    20011019
                                            WO 2001-GB4821
                                                                 W
                                                                    20011031
                                            GB 2002-22409
                                                                 Α
                                                                    20020926
                                            WO 2002-GB4735
                                                                 W
                                                                    20021018
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AB New formulations and new uses of kahalalide F are provided for antitumor application against neuroblastomas or dedifferentiated or mesenchymal chondrosarcomas or osteosarcomas.

IT 149204-42-2, Kahalalide F

RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(kahalalide F formulations for antitumor use)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

HCAPLUS COPYRIGHT 2006 ACS on STN L12 ANSWER 39 OF 59

ACCESSION NUMBER:

2001:924856 HCAPLUS

DOCUMENT NUMBER:

136:315111

TITLE:

Development of an HPLC method with UV detection for the pharmaceutical quality control of the novel marine

anticancer agent kahalalide F

AUTHOR (S):

Nuijen, B.; Bouma, M.; Floriano, P.; Manada, C.; Rosing, H.; Stokvis, E.; Kettenes-van den Bosch, J.

J.; Bult, A.; Beijnen, J. H.

CORPORATE SOURCE:

Department of Pharmacy and Pharmacology, Slotervaart Hospital, The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE:

Journal of Liquid Chromatography & Related Technologies (2001), 24(20), 3141-3155

CODEN: JLCTFC; ISSN: 1082-6076

PUBLISHER:

Marcel Dekker, Inc.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Kahalalide F is a cyclic depsipeptide derived from the marine mollusc Elysia rufescens, an organism living in the seas near Hawaii. On the basis of its in vitro and in vivo selectivity, kahalalide F is currently developed as a potential anticancer agent against androgen independent prostate tumors. The development and validation of a reversed-phase high performance liquid chromatog. (RP-HPLC) method with ultra-violet (UV) detection for the quantification and purity determination of kahalalide F in

raw

drug substance and pharmaceutical dosage form was described. calibration curves in the range of 0.5-12.5 μg/mL of kahalalide F with correlation coeffs. > 0.999 were obtained. Within-run and between-run precisions were ≤ 3.0% and accuracy was within 100.4-103.2%. assay proved selective, as determined by stress-testing, confirming its stability indicating capacity. Using liquid chromatog.-mass spectrometry (LC-MS) anal., kahalalide G, the hydrolyzed open-chain analog of kahalalide F, appeared upon heating and in acidic media. Furthermore, it was shown that kahalalide F remains its integrity in the freeze-dried pharmaceutical dosage form.

149204-42-2, Kahalalide F IT

RL: ANT (Analyte); ANST (Analytical study)

(determination of anticancer agent Kahalalide F by HPLC with UV detection

and

comparison to LC-MS method results)

RN 149204-42-2 HCAPLUS

Kahalalide F (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

Double bond geometry as shown.

Me₂CH (CH₂)
$$\stackrel{O}{_{3}}$$
 NH Me $\stackrel{O}{_{R}}$ NH $\stackrel{i-pr}{_{N}}$ NH $\stackrel{O}{_{N}}$ NH $\stackrel{i-pr}{_{N}}$ NH $\stackrel{O}{_{N}}$ NH $\stackrel{i-pr}{_{N}}$ NH $\stackrel{O}{_{N}}$ NH

PAGE 1-B

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 40 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

5

ACCESSION NUMBER: 2001:849600 HCAPLUS

DOCUMENT NUMBER: 136:99533

TITLE: Chemical defenses of the sacoglossan mollusk Elysia

rufescens and its host alga Bryopsis sp.

AUTHOR(S): Becerro, Mikel A.; Goetz, Gilles; Paul, Valerie J.;

Scheuer, Paul J.

CORPORATE SOURCE: Department of Chemistry, University of Hawaii at

Manoa, Honolulu, HI, 96822, USA

SOURCE: Journal of Chemical Ecology (2001), 27(11), 2287-2291

CODEN: JCECD8; ISSN: 0098-0331

PUBLISHER: Kluwer Academic/Plenum Publishers

DOCUMENT TYPE: Journal LANGUAGE: English

AB Sacoglossans are a group of opisthobranch mollusks that have been the source of numerous secondary metabolites; however, there are few examples where a defensive ecol. role for these compds. has been demonstrated exptl. We investigated the deterrent properties of the sacoglossan Elysia rufescens and its food alga Bryopsis sp. against natural fish predators. Bryopsis sp. produces kahalalide F, a major depsipeptide that is

accumulated by the sacoglossan and that shows in vitro cytotoxicity against several cancer cell lines. Our data show that both Bryopsis sp. and Elysia rufescens are chemical protected against fish predators, as indicated by the deterrent properties of their exts. at naturally occurring concns. Following bioassay-guided fractionation, we observed that the antipredatory compds. of Bryopsis sp. were present in the butanol and chloroform fractions, both containing the depsipeptide kahalalide F. Antipredatory compds. of Elysia rufescens were exclusively present in the dichloromethane fraction. Further bioassay-guided fractionation led to the isolation of kahalalide F as the only compound responsible for the deterrent properties of the sacoglossan. Our data show that kahalalide F protects both Bryopsis sp. and Elysia rufescens from fish predation. This is the first report of a diet-derived depsipeptide used as a chemical defense in a sacoglossan.

IT 149204-42-2, Kahalalide F

RL: BSU (Biological study, unclassified); BIOL (Biological study) (chemical defenses of sacoglossan mollusk and its host alga against predator fish)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

37

REFERENCE COUNT:

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Audet 10 531553

L12 ANSWER 41 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:846704 HCAPLUS

DOCUMENT NUMBER:

137:98856

TITLE:

Development of a lyophilized parenteral pharmaceutical formulation of the investigational polypeptide marine

anticancer agent kahalalide F

AUTHOR(S):

Nuijen, B.; Bouma, M.; Talsma, H.; Manada, C.; Jimeno, J. M.; Lopez-Lazaro, L.; Bult, A.; Beijnen, J. H. Department of Pharmacy and Pharmacology, Slotervaart Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE:

Drug Development and Industrial Pharmacy (2001),

27(8), 767-780

CODEN: DDIPD8; ISSN: 0363-9045

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: LANGUAGE:

CORPORATE SOURCE:

Journal English

AB Kahalalide F is a novel antitumor agent isolated from the marine mollusk Elysia rufescens; it has shown highly selective in vitro activity against androgen-independent prostate tumors. The purpose of this study was to develop a stable parenteral formulation of kahalalide F to be used in early clin. trials. Solubility and stability of kahalalide F were studied as a function of polysorbate 80 (0.1%-0.5% w/v) and citric acid monohydrate (5-15 mM) concns. using an exptl. design approach. Stabilities of

kahalalide F lyophilized products containing crystalline (mannitol) or

amorphous

(sucrose) bulking agents were studied at +5° and +30°±60% relative humidity (RH) in the dark. Lyophilized products were characterized by IR (IR) spectroscopy and differential scanning calorimetry (DSC). Recovery studies after reconstitution of kahalalide F lyophilized product and further dilution in infusion fluid were carried out to select an optimal reconstitution vehicle. It was found that a combination of polysorbate 80 and citric acid monohydrate is necessary to solubilize kahalalide F. Lyophilized products were considerably less stable with increasing polysorbate 80 and citric acid monohydrate concns., with polysorbate 80 being the major effector. A combination of 0.1% w/v polysorbate 80 and 5 mM citric acid monohydrate was selected for further investigation. Lyophilized products containing sucrose as a bulking agent were more stable compared to the products containing mannitol. The glass transition temperature of the sucrose-based product was determined to be +46°. The amorphous state of the product was confirmed by IR anal. A solution composed of Cremophor EL, ethanol, and water for injection (5%/5%/90% volume/volume/v CEW) kept kahalalide F in solution after reconstitution and further dilution with 0.9% w/v sodium chloride (normal saline) to 1.5 μg/m. A stable lyophilized formulation was presented containing 100 μg of kahalalide F, 100 mg sucrose, 2.1 mg citric acid monohydrate, and 2 mg polysorbate 80 to be reconstituted with a vehicle composed of 5%/5%/90% volume/volume/v CEW and to be diluted further using normal saline.

IT 149204-42-2, Kahalalide F

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lyophilized parenteral pharmaceutical formulation of polypeptide marine anticancer agent kahalalide F)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$

PAGE 1-B

REFERENCE COUNT:

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 42 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

22

ACCESSION NUMBER: 2001:781497 HCAPLUS

DOCUMENT NUMBER: 136:86050

TITLE: Synthesis and Structure Determination of Kahalalide F

AUTHOR(S): Lopez-Macia, Angel; Jimenez, Jose Carlos; Royo,

Miriam; Giralt, Ernest; Albericio, Fernando
CORPORATE SOURCE: Department of Organic Chemistry, University of

Barcelona, Barcelona, 08028, Spain

SOURCE: Journal of the American Chemical Society (2001),

123(46), 11398-11401

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:86050

AB Kahalalide F, the only member of the kahalalide peptide family with important bioactivity, is in clin. trials for treatment of prostate cancer. An efficient solid-phase synthetic approach is reported. Kahalalide F presents several synthetic difficulties: (i) an ester bond between two β -branched and sterically hindered amino acids; (ii) a didehydroamino acid; and (iii) a rather hydrophobic sequence with two fragments containing several β -branched amino acids in a row, one of them terminated with a saturated aliphatic acid. The cornerstones of our strategy

Audet 10_531533

were (i) a quasiorthogonal protecting system with allyl, tert-Bu, fluorenyl, and trityl-based groups, (ii) azabenzotriazole coupling reagents, (iii) formation of the didehydroamino acid residue on the solid phase, and (iv) cyclization and final purification in solution HPLC, high-field

NMR, and biol. activity studies showed that the correct stereochem. of the natural product is that proposed by Rinehart et al., whereas the stereochem. proposed by Scheuer et al. is that of a biol. less active diastereoisomer.

IT 149204-42-2P, Kahalalide F 354112-37-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Préparation)

(solid-phase synthesis, structure detns. and biol. activity of kahalalide F and its diastereomer)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 354112-37-1 HCAPLUS

CN Kahalalide F, 3-D-valine-4-L-valine- (9CI) (CA INDEX NAME)

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{N}}$ NH $\stackrel{\circ}{_{N}$

PAGE 1-B

REFERENCE COUNT:

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 43 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:755009 HCAPLUS

DOCUMENT NUMBER: 136:79394

TITLE: Chemical and enzymatic stability of a cyclic

depsipeptide, the novel, marine-derived, anti-cancer

agent kahalalide F

AUTHOR(S): Sparidans, Rolf W.; Stokvis, Ellen; Jimeno, Jose M.;

Lopez-Lazaro, Luis; Schellens, Jan H. M.; Beijnen, Jos

Η.

CORPORATE SOURCE: Faculty of Pharmacy, Department of Biomedical

Analysis, Division of Drug Toxicology, Utrecht

University, Utrecht, 3584 CA, Neth.

SOURCE: Anti-Cancer Drugs (2001), 12(7), 575-582

CODEN: ANTDEV; ISSN: 0959-4973

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

AB Kahalalide F is a cyclic depsipeptide isolated from the Hawaiian mollusk Elysia rufescens. This compound is under present phase I clin. investigation as an anti-tumor drug. The role of possible metabolic reactions of this drug in (pre-)clin. investigations has not yet been explored. The first results for kahalalide F in this field of research are given in this paper. The chemical degradation of kahalalide F was

investigated under acid, neutral and alkaline conditions using high-performance liquid chromatog. with UV detection. The half-lives at 80° were 1.1, 20 and 8.6 h at pH 0, 1 and 7, resp. At 26° and pH 11, the half-life was 1.65 h. At pH 7 and 11, only one reaction product of kahalalide F was observed, kahalalide G, the hydrolyzed lactone product of kahalalide F. At pH 0 and 1, addnl. reaction products emerged. Metabolic conversion of kahalalide F was tested in vitro using three different enzyme systems based on pooled human microsomes, pooled human plasma and uridine 5'-diphosphoglucuronyl transferase, resp. The incubated samples were analyzed using the same chromatog, technique as for the degradation samples. Biotransformations were not observed under these conditions and, therefore, it is concluded that kahalalide F is a metabolically stable drug.

IT 149204-42-2, Kahalalide F

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(chemical and enzymic stability of a cyclic depsipeptide, the novel, marine-derived, anti-cancer agent kahalalide F)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Audet 10_531533 Audet 10 5.15

L12 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:706055 HCAPLUS

DOCUMENT NUMBER: 136:406817

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1010

TITLE: Compatibility and stability of the investigational

polypeptide marine anticancer agent kahalalide F in

infusion devices

AUTHOR(S): Nuijen, Bastiaan; Bouma, Marjan; Manada, Consuelo;

Jimeno, Jose M.; Lazaro, Luis L.; Bult, Auke; Beijnen,

Jos H.

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE: Investigational New Drugs (2001), 19(4), 273-281

CODEN: INNDDK; ISSN: 0167-6997

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal LANGUAGE: English

AB Kahalalide F is a novel marine-derived antitumor agent isolated from the marine mollusk Elysia rufescens, an organism living in the seas near Hawaii. The compound has shown highly selective in vitro activity against prostate tumors and phase I trials in patients with androgen independent prostate tumors incorporating a daily times five and weekly schedule have been initiated. Kahalalide F is pharmaceutically formulated as a lyophilized product containing 150 μg active substance per dosage unit. Prior to i.v. administration it is reconstituted with a solution composed of Cremophor EL, ethanol absolute and Water for Injection (CEW, 5/5/90% volume/volume/v) with further dilution in 0.9% w/v sodium chloride for infusion.

The aim of this study was to investigate the compatibility and stability of kahalalide F with different infusion systems prior to the start of clin. trials with the compound Due to the presence of Cremophor EL in the infusion solution, leaching of diethylhexyl phthalate (DEHP) from polyvinyl chloride infusion containers (PVC, Add-a-Flex) was found. Loss of kahalalide F as a consequence of sorption to contact surfaces was shown with an infusion container composed of low d. polyethylene (LD-PE, Miniflac). We conclude that kahalalide F must be administered in a 3-h infusion in concns. of 0.5 μ g/mL to 14.7 μ g/mL using an administration set consisting of a glass container and a low-extrables, DEHP-free extension set. Kahalalide F 150 μg/vial powder for infusion reconstituted with 5/5/90% volume/volume/v CEW is stable in the original container for at least 24 h at room temperature (+20-25°) and ambient light conditions. Infusion solns. stored in glass infusion containers at either room temperature (+20-25°, in the dark) or refrigerated conditions (+2-8°, in the dark) are stable for at least 5 days after preparation 149204-42-2, Kahalalide F

RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compatibility and stability of investigational polypeptide marine anticancer agent kahalalide F in infusion devices)

RN 149204-42-2 HCAPLUS

ΙT

CN Kahalalide F (9CI) (CA INDEX NAME)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 45 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:688206 HCAPLUS

DOCUMENT NUMBER: 136:79361

TITLE: Evaluation of the use of in vitro methodologies as

tools for screening new compounds for potential in

vitro toxicity

AUTHOR(S): Luber-Narod, J.; Smith, B.; Grant, W.; Jimeno, J. M.;

Lopez-Lazaro, L.; Faircloth, G. T.

CORPORATE SOURCE: PharmaMar USA, Inc., Cambridge, MA, 02139, USA

SOURCE: Toxicology in Vitro (2001), 15(4/5), 571-577

CODEN: TIVIEQ; ISSN: 0887-2333

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The use of in vitro methods as a safety toxicol. screen was evaluated with well-studied standard chemotherapeutic agents. Using the MTS assay (CellTiter 96 aqueous), 5-fluorouracil was found to exhibit myelocytotoxicity only. There was no cytotoxicity to liver, kidney and heart cells, except at very high concns. ET-743 was found to show hepatocytotoxicity, skeletal muscle cytotoxicity, and myelocytotoxicity and, at somewhat higher concns., nephrocytotoxicity and cardiocytotoxicity. A combination of techniques was used to measure neurotoxicity. LDH assay (CytoTox 96) and MTS assay

led to comparable results. These techniques determined that ET-743 is selectively cytotoxic to brain glia yet, to some extent, spares neurons. The results obtained agreed well with clin. findings of several known drugs tested.

IT 149204-42-2, Kahalalide f

RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(evaluation of use of in vitro methodologies as tools for screening new compds. for potential in vitro toxicity)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 46 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:648439 HCAPLUS

DOCUMENT NUMBER:

136:374779

TITLE:

In vitro hemolysis and buffer capacity studies with the novel marine anticancer agent kahalalide F and its

reconstitution vehicle Cremophor EL/ethanol

AUTHOR(S):

Nuijen, Bastiaan; Bouma, Marjan; Manada, Consuelo;

Jimeno, Jose M.; Bult, Aune; Beijnen, Jos H.

Audet 10_531533

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066EC, Neth.

SOURCE: PDA Journal of Pharmaceutical Science and Technology

(2001), 55(4), 223-229

CODEN: JPHTEU; ISSN: 1076-397X

PUBLISHER: PDA, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An in vitro biocompatibility study was performed with the pharmaceutical formulation of the investigational, marine-derived anticancer agent kahalalide F developed for early clin. studies. The pharmaceutical formulation consists of a lyophilized product containing 150 µg kahalalide F, 3 mg citric acid, 3 mg polysorbate 80, and 150 mg of sucrose per dosage unit, to be reconstituted with 3 mL of a mixture composed of Cremophor EL, ethanol, and water (5/5/90% volume/volume/v), resulting in a solution of pH 3

and

to be further diluted in normal saline for infusion. The reconstituted product, infusion solns., and Cremophor/ethanol (CE) vehicle were tested for hemolytic potential and buffer capacity. No significant hemolysis due to the kahalalide F formulation as well as the CE vehicle was found using both a static and dynamic test model. FB-ratio's (ratio of formulation solution (F) and volume of blood simulant (B) necessary to maintain physiol. pH) as a measure of the buffer capacity of the kahalalide F infusion solns. examined indicated that no vascular irritation due to pH effects is expected in the intended administration schedule in the forthcoming Phase I study.

IT 149204-42-2, Kahalalide F

RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bin vitro hemolysis and buffer capacity studies with marine anticancer agent kahalalide F and its reconstitution vehicle Cremophor EL/ethanol)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

REFERENCE COUNT:

17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2006 ACS on STN L12 ANSWER 47 OF 59

ACCESSION NUMBER:

2001:598019 HCAPLUS

DOCUMENT NUMBER:

135:167039

TITLE:

Preparation of kahalalide compounds

INVENTOR(S):

Albericio, Fernando; Giralt, Ernest; Jimenez, Jose Carlos; Lopez, Angel; Manzanares, Ignacio; Rodrigues,

Ignacio; Royo, Miriam

PATENT ASSIGNEE(S):

Pharma Mar, S.A., Spain; Ruffles, Graham Keith

SOURCE:

PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIN	KIND DATE			APPLICATION NO.					DATE					
WO 2001058934 WO 2001058934						WO 2001-GB576					20010209						
	W :	CR, HU, LU,	CU, ID, LV,	CZ, IL, MA,	DE, IN, MD,	DK, IS, MG,	DM, JP, MK,	DZ, KE, MN,	EE, KG, MW,	ES, KP, MX,	, BG, , FI, , KR, , MZ,	GB, KZ, NO,	GD, LC, NZ,	GE, LK, PL,	GH, LR, PT,	GM, LS, RO,	HR, LT, RU,
	RW:	YU, GH, DE,	ZA, GM, DK,	ZW KE, ES,	LS, FI,	MW,	MZ, GB,	SD, GR,	SL, IE,	SZ,	, TZ,	UG,	ZW,	AT,	BE, SE,	CH,	CY,
	CA 2399187			AA 20010816			GW, ML, MR, NE, SN, CA 2001-2399187 EP 2001-904169				20010209						
		AT,	BE,	CH,	DE,	DK,		FR,	GB,	GR,	, IT,						
JP	2001	5221	98		Т2		2003	0722		JP 2	2001-	5580	81		2	00102	209
AU	5204 7835 2280	42						1110		AU 2	2001-: 2001-: 2002-:	3208	6		2	00102 00102 00102	209
BG	2002 1070 2004	20			A A A1		2002 2003 2004	0530	:	BG 2	2002-1 2002-1 2003-1	1070	20		2	00208 00208 00308	321
PRIORITY					711		2004	1020	(GB 2	2005-2 2000-2 2001-0	2952		2	A 2	00002 00102	209

OTHER SOURCE(S):

MARPAT 135:167039

AB Kahalalide F and kahalalide mimic compds. having useful biol. activity were prepared The mimics differ from natural kahalalides in one or more of the following respects: at least one amino acid which is not the same as an amino acid present in the parent compound and at least one methylene group or substituent in the side chain acyl group of the parent compound is addnl. or omitted. Approx. 40 kahalalide analogs, including 5-MeHex-D-Val-Thr-Val-D-Val-D-Pro-Orn-D-allo-Ile-cyclo(D-allo-Thr-D-allo-Ile-D-Val-Phe-Etg-Val) (5-MeHex is 5-methylhexanoyl and Etg is ethylglycine residue), were prepared by the solid phase method and their cytotoxicities (IC50 values) tabulated.

IT 353491-44-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BYP (Byproduct); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of kahalalide compds.)

RN 353491-44-8 HCAPLUS

CN Kahalalide F, 10-L-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

IT 149204-42-2P, Kahalalide F 353491-55-1P 353491-56-2P 353491-57-3P 353491-58-4P

353491-59-5P 353491-60-8P 353491-61-9P

353491-62-0P 353491-63-1P 353491-64-2P

353491-65-3P 353491-66-4P 353491-67-5P 353491-68-6P 353491-69-7P 353491-70-0P 353491-71-1P 353491-72-2P 353491-73-3P 353491-74-4P 353491-75-5P 353491-76-6P 353491-77-7P 353491-78-8P 353491-79-9P 354112-37-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of kahalalide compds.)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-55-1 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxobutyl)-D-valine]- (9CI) '(CA INDEX NAME)

RN 353491-56-2 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxobutyl)-D-valine]-10-L-valine- (9CI) (CA INDEX NAME)

RN 353491-57-3 HCAPLUS CN Kahalalide F, 1-[N-(3-methyl-1-oxobutyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-58-4 HCAPLUS

CN Kahalalide F, 1-[N-(3-methyl-1-oxobutyl)-D-valine]-10-L-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-59-5 HCAPLUS CN Kahalalide F, 1-[N-(3,3-dimethyl-1-oxobutyl)-D-valine]- (9CI) (CA INDEX NAME)

RN 353491-60-8 HCAPLUS
CN Kahalalide F, 1-[N-(3,3-dimethyl-1-oxobutyl)-D-valine]-10-L-valine- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-61-9 HCAPLUS

Kahalalide F, 1-[N-(4-methyl-1-oxopentyl)-D-valine]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

RN

353491-62-0 HCAPLUS Kahalalide F, 1-[N-(4-methyl-1-oxopentyl)-D-valine]-10-L-valine- (9CI) CN(CA INDEX NAME)

PAGE 1-B

Me Me Pr-i O Me
$$Z H$$
 $X H$ $X H$

RN 353491-63-1 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxoheptyl)-D-valine]- (9CI) (CA INDEX NAME)

RN 353491-64-2 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxoheptyl)-D-valine]-10-L-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-65-3 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxohexadecyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-66-4 HCAPLUS
CN Kahalalide F, 1-[N-(1-oxohexadecyl)-D-valine]-10-L-valine- (9CI) (CA INDEX NAME)

Page 165

RN 353491-67-5 HCAPLUS

CN Kahalalide F, 1-[N-[4-(dimethylamino)-1-oxobutyl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-68-6 HCAPLUS

CN Kahalalide F, 1-[N-(1-oxo-2,4-hexadienyl)-D-valine]- (9CI) (CA INDEX

Lidet (1) 3752

NAME)

,33

Absolute stereochemistry. Double bond geometry as described by E or Z.

PAGE 1-A

PAGE 1-B

RN 353491-69-7 HCAPLUS

CN Kahalalide F, 1-[N-[4-(acetyloxy)-1-oxobutyl]-D-valine]- (9CI) (CA INDEX NAME)

RN 353491-70-0 HCAPLUS CN Kahalalide F, 1-[N-(4-hydroxy-1-oxobutyl)-D-valine]- (9CI) (CA INDEX NAME)

RN 353491-71-1 HCAPLUS CN Kahalalide F, 1-(N-acetyl-D-valine)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

RN 353491-72-2 HCAPLUS CN Kahalalide F, 1-D-valine- (9CI) (CA INDEX NAME) Audet 10_531533

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

RN 353491-73-3 HCAPLUS

CN Kahalalide F, 1-D-valine-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 353491-72-2

CMF C68 H112 N14 O15

PAGE 1-B

CM 2

CRN 76-05-1 CMF C2 H F3 O2

33

RN 353491-74-4 HCAPLUS

CN Kahalalide F, 1-[N-[4-[4-(acetyloxy)-1-oxobutoxy]-1-oxobutyl]-D-valine]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 353491-76-6 HCAPLUS CN Kahalalide F, 1-[N-[(3 α ,5 β)-3-hydroxy-24-oxocholan-24-yl]-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

PAGE 1-C

RN 353491-77-7 HCAPLUS

CN Kahalalide F, $1-[N-[(3\alpha,5\beta)-3-hydroxy-24-oxocholan-24-y1]-D-valine]-$, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 353491-76-6

CMF C92 H150 N14 O17

PAGE 1-A

PAGE 1-B

PAGE 1-C

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 353491-78-8 HCAPLUS CN Kahalalide F, 1-[N-(1-oxotetracosyl)-D-valine]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

RN 353491-79-9 HCAPLUS CN Kahalalide F, 1-D-valine-10-L-valine- (9CI) (CA INDEX NAME)

RN 354112-37-1 HCAPLUS

CN Kahalalide F, 3-D-valine-4-L-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

L12 ANSWER 48 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:593276 HCAPLUS

DOCUMENT NUMBER: 135:170762

TITLE: Cytotoxic and antimicrobial activities of Kahalalide F

from Elysia rufescens

INVENTOR(S): Scheuer, Paul J.; Hamann, Mark T.; Gravalos, Dolores

G.

PATENT ASSIGNEE(S): PharmaMar, S.A., Spain

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6274551	B1	20010814	US 1994-192569	19940203
US 6011010	Α	20000104	US 1997-935073	19970925
PRIORITY APPLN. IN	FO.:		US 1994-192569	A1 19940203

AB Kahalalide F (I) is isolated from a sacoglossan (Elysia rufescens). I may be used in the manufacture of pharmaceutical compns. or in the treatment of tumors or viral conditions. Two hundred sacoglossans (E. rufescens), were collected and extracted 3 times with EtOH. The combined exts. were then chromatographed on silica gel flash chromatog. by using hexane, hexane/EtOAc (1:1), EtOAc, EtOAc/MeOH (1:1), MeOH, MeOH/HOAc (98:2). The depsipeptides were found in the EtOAc/MeOH (1:1) fraction. Repeated RP-HPLC yielded 6 new depsipeptides, out of which I was isolated and its structure was determined

IT 149204-42-2, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (cytotoxic and antimicrobial activities of Kahalalide F from Elysia rufescens)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

Me₂CH (CH₂) 3 NH Me R S NH
$$i-Pr$$
 S NH $i-Pr$ S NH

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 49 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

5

2000:128631 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 132:290934

TITLE: Marine natural products as antituberculosis agents

AUTHOR (S): El Sayed, Khalid A.; Bartyzel, Piotr; Shen, Xiaoyu; Perry, Tony L.; Zjawiony, Jordan K.; Hamann, Mark T. Department of Pharmacognosy, NCNPR School of Pharmacy, CORPORATE SOURCE:

The University of Mississippi, MS, 38677, USA SOURCE:

Tetrahedron (2000), 56(7), 949-953 CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal English LANGUAGE:

GI

3 4

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

In an attempt to characterize addnl. structural classes that could serve as lead antituberculosis agents, 48 structurally diverse marine-derived

Audet. 10 531533

natural and semisynthetic compds. were examined for in vitro activity against Mycobacterium tuberculosis. Three new classes of compds. including C-19 hydroxy steroids [e.g. litosterol (I)], scalarin sesquiterpenoids [e.g. heteronemin (II)], and tetrabromo spirocyclohexadienylisoxazolines [e.g. 11-hydroxyaerothionin (III)] have been identified as having potential as leads for continued investigations as new antituberculosis agents. New addns. to the established antituberculosis structural classes quinone-methide and peptide are also reported.

IT 149204-42-2, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(marine natural products as antituberculosis agents)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 50 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:10614 HCAPLUS

DOCUMENT NUMBER: 132:59154

Audet 10_531533

TITLE: Kahalalide F or salts of this sacoglossan peptide in

treatment of tumors and viral infections in mammals Scheuer, Paul J.; Hamann, Mark T.; Gravalos, Dolores

G.

PATENT ASSIGNEE(S): Pharma Mar, S.A., Spain

SOURCE: U.S., 5 pp., Cont. of U.S. Ser. No. 192,569.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

INVENTOR(S):

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 6011010	Α	20000104	US 1997-935073	19970925
	US 6274551	B1	20010814	US 1994-192569	19940203
P	PRIORITY APPLN. INFO.:			US 1994-192569	19940203
_					

AB Kahalalide F, a peptide that may be isolated from a sacoglossan (Elysia rufescens), or a pharmaceutically acceptable salt thereof, may be used in the treatment of mammalian tumors or viral infections. Use for treatment of human lung carcinoma, human colon carcinoma, Herpes simplex and Vesicular Stomatitis viral infections in mammals is claimed.

IT 149204-42-2, Kahalalide F 149204-42-2D, Kahalalide F,

salts

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(in treatment of human carcinomas and mammalian viral infections)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 149204-42-2 HCAPLUS CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 51 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1999:631977 HCAPLUS

Audet 10_531533 et .10 5315:

DOCUMENT NUMBER:

131:337344

TITLE:

* . . .

The absolute stereochemistry of kahalalide F. [Erratum

to document cited in CA131:157974]

AUTHOR (S):

Goetz, Gilles; Yoshida, Wesley Y.; Scheuer, Paul J.

CORPORATE SOURCE:

Department of Chemistry, University of Hawaii,

Honolulu, HI, 96822, USA

SOURCE:

Tetrahedron (1999), 55(40), 11957

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER:

Elsevier Science Ltd. Journal

DOCUMENT TYPE:

LANGUAGE:

English

AB

On page vii, in the graphical abstract, L-Pro should read D-Pro.

IT 149204-42-2, Kahalalide F

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(absolute stereochem. of kahalalide F (Erratum))

RN149204-42-2 HCAPLUS

CNKahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

L12 ANSWER 52 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:392419 HCAPLUS

DOCUMENT NUMBER:

131:157974

TITLE:

The absolute stereochemistry of kahalalide F

AUTHOR (S): CORPORATE SOURCE: Goetz, Gilles; Yoshida, Wesley Y.; Scheuer, Paul J. Dep. Chemistry, Univ. Hawaii, Honolulu, HI, 96822, USA

SOURCE:

Tetrahedron (1999), 55(25), 7739-7746

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal English LANGUAGE:

Kahalalide F(1) is a depsipeptide of 14 residues, five of which form a AΒ 19-membered ring. It was isolated from a marine mollusk, Elysia rufescens, and is currently in preclin. trails against lung and colon cancers. It was known from conventional amino acid anal. that five valine and two threonine residues represented D- and L-enantiomers, but their position in the mol. was not known. After extensive hydrolytic trials, a combination of acid hydrolysis and hydrazinolysis succeeded in definitive stereochem. assignment.

149204-42-2, Kahalalide F IT

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent) (absolute stereochem. of kahalalide F)

149204-42-2 HCAPLUS RN

Kahalalide F (9CI) (CA INDEX NAME) CN

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

6

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L12 ANSWER 53 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:447351 HCAPLUS

DOCUMENT NUMBER: 129:228328

TITLE: Kahalalides: Bioactive Peptides from a Marine Mollusk

Elysia rufescens and Its Algal Diet Bryopsis sp..

[Erratum to document cited in CA125:190997]

AUTHOR(S): Hamman, Mark T.; Otto, Clifton S.; Scheuer, Paul J.;

Dunbar, D. Chuck

CORPORATE SOURCE: Department of Chemistry, University of Hawaii of

Manoa, Honolulu, HI, 96822, USA

SOURCE: Journal of Organic Chemistry (1998), 63(14), 4856

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB On page 6595, the labeled amino acid on the structure of kahalalide F (6)

should read D-Pro rather than L-Pro.

IT 149204-42-2P, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence);

PREP (Preparation)

(depsipeptide isolation and structural characterization and antitumor and antiviral activity from marine mollusk and green alga (Erratum))

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

L12 ANSWER 54 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:403108 HCAPLUS

DOCUMENT NUMBER: 127:62001

TITLE: Marine natural products as prototype insecticidal

agents

AUTHOR(S): El Sayed, Khalid A.; Dunbar, D. Charles; Perry, Tony

L.; Wilkins, Scott P.; Hamann, Mark T.; Greenplate,

John T.; Wideman, Margaret A.

CORPORATE SOURCE: Department of Pharmacognosy School of Pharmacy,

University of Mississippi, University, MS, 38677, USA

SOURCE: Journal of Agricultural and Food Chemistry (1997),

45(7), 2735-2739

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB In an attempt to characterize addnl. structural classes that could serve as prototypes for insecticides, 26 structurally diverse marine compds. were examined for insecticidal activity in a diet overlay assay against newly hatched larvae of the southern corn rootworm, Diabrotica undecimpunctata howardi, and the tobacco budworm, Heliothis virescens. Several new classes of compds. have been identified as having potential as lead compds. for the development of new marine-derived insecticides.

IT 149204-42-2, Kahalalide f

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (marine natural products as insecticides)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{O}{_{3}}$$
 NH Me $\stackrel{O}{_{R}}$ NH $\stackrel{O}{_{N}}$ NH $\stackrel{O}{_{N}$

PAGE 1-B

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 55 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

1996:531764 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 125:190997

TITLE: Kahalalides: bioactive peptides from a marine mollusk

Elysia rufescens and its algal diet Bryopsis sp.

AUTHOR (S): Hamann, Mark T.; Otto, Clifton S.; Scheuer, Paul J.;

Dunbar, D. Chuck

CORPORATE SOURCE: Department of Chemistry, University of Hawaii of

Manoa, Honolulu, HI, 96822, USA

SOURCE: Journal of Organic Chemistry (1996), 61(19), 6594-6600

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In addition to the previously reported bioactive kahalalide F, 6 new peptides are described. Six of these, including kahalalide F, are cyclic depsipeptides, ranging from a C31 tripeptide to a C75 tridecapeptide isolated from a sacoglossan mollusk, E. rufescens. The mollusk feeds on a green alga, Bryopsis sp., which has also been shown to elaborate some of these peptides in smaller yields, in addition to an acyclic analog of F, kahalalide G. The bioassay results of antitumor, antiviral, antimalarial, and OI (activity against AIDS opportunistic infections) tests are

reported.

IT 149204-42-2P, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(depsipeptide isolation and structural characterization and antitumor and antiviral activity from marine mollusk and green alga)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

L12 ANSWER 56 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1996:423809 HCAPLUS

DOCUMENT NUMBER:

125:131710

TITLE:

The marine environment: A resource for prototype

antimalarial agents

AUTHOR (S):

El Sayed, Khalid A.; Dunbar, D. Charles; Goins, D. Keith; Cordova, Cindy R.; Perry, Tony L.; Wesson,

Keena J.; Sanders, Sharon C.; Janus, Scott A.; Hamann,

Mark T.

CORPORATE SOURCE:

Center the Development Natural Products, University

Mississippi, University, MS, 38677, USA

Audet 10_531533

SOURCE: Journal of Natural Toxins (1996), 5(2), 261-285

CODEN: JNTOER; ISSN: 1058-8108

PUBLISHER: Alaken
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In an attempt to characterize addnl. structural classes that could serve as prototype antimalarial agents, 28 structurally diverse marine compds. were examined for in vitro activity against the D6 and W2 clones of

were examined for in vitro activity against the D6 and W2 clones of Plasmodium falciparum. Several new classes of compds. have been identified as having potential as prototypes for the development of new

antimalarial agents.

IT 149204-42-2, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(antimalarial activity of biomols. from marine organisms)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

L12 ANSWER 57 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:58580 HCAPLUS

DOCUMENT NUMBER: 124:164539

Audet _10_531533

TITLE: The antitumoral compound Kahalalide F acts on cell

lysosomes

AUTHOR(S): Garcia-Rocha, Mar; Bonay, Pedro; Avila, Jesus

CORPORATE SOURCE: 28049-Madrid, Spain

SOURCE: Cancer Letters (Shannon, Ireland) (1996), 99(1), 43-50

CODEN: CALEDQ; ISSN: 0304-3835

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The target for the antitumoral peptidic drug, Kahalalide F, has been studied in cultured cells. In the presence of the compound, the cells became impressively swollen, showing the formation of large vacuoles. The formation of these vacuoles appears to be the consequence of changes in lysosomal membranes. Thus, lysosomes are a target for Kahalalide F

action.

IT 149204-42-2, Kahalalide F

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(the antitumoral compound Kahalalide F acts on cell lysosomes)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

وأرافق والمراوي

L12 ANSWER 58 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1995:130565 HCAPLUS

DOCUMENT NUMBER:

122:17167

TITLE:

3.3

Kalahide F as cytotoxic and antiviral and antifungal

compound

INVENTOR (S):

Schauer, Paul J.; Hamann, Mark T.; Gravalos, Dolores

1

PATENT ASSIGNEE(S):

Pharma Mar, S.A., Spain Eur. Pat. Appl., 10 pp.

SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
	EP 610078	A1	19940810	EP 1994-300780	19940202				
	EP 610078	B1	19970416						
	R: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IE, IT, LI, I	LU, MC, NL, PT, SE				
	AT 151776	E	19970515	AT 1994-300780	19940202				
	ES 2102772	T 3	19970801	ES 1994-300780	19940202				
	CA 2114859	AA	19940804	CA 1994-2114859	19940203				
	AU 9454911	A1	19940811	AU 1994-54911	19940203				
	AU 677258	B2	19970417						
	ZA 9400748	A	19940929	ZA 1994-748	19940203				
	JP 07070185	A2	19950314	JP 1994-43024	19940203				
	JP 3452628	B2	20030929		•				
PRIC	RITY APPLN. INFO.:			GB 1993-2046	A 19930203				
AB	Kalahide F (I) which	h is is	olated from	sacoglossan may be	used in the				
	treatment of tumors								
	rufescens by extrac				_				
	antiviral and cytot		•	_	5 .				

IT 149204-42-2

> RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(kalahide F as cytotoxic and antiviral and antifungal compound)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ $\stackrel{\circ}{_{N}}$ $\stackrel{\circ}{_{$

PAGE 1-B

L12 ANSWER 59 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1993:491602 HCAPLUS

DOCUMENT NUMBER:

119:91602

TITLE:

Kahalalide F: a bioactive depsipeptide from the

sacoglossan mollusk Elysia rufescens and the green

alga Bryopsis sp

AUTHOR(S):

Hamann, Mark T.; Scheuer, Paul J.

CORPORATE SOURCE:

Dep. Chem., Univ. Hawaii, Honolulu, HI, 96822, USA Journal of the American Chemical Society (1993),

SOURCE: Journal of the 1 115(13), 5825-6

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Kahalalide F, C75H124N14O16, was isolated from a sacoglossan mollusk Elysia rufescens and its food source, a green alga, Bryopsis. Its structure was determined by spectral detns. and chiral amino acid anal.

IT 149204-42-2, Kahalalide F RL: BIOL (Biological study)

(of sacoglossan mollusk and green alga)

RN 149204-42-2 HCAPLUS

CN Kahalalide F (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

Me₂CH (CH₂)
$$\stackrel{\circ}{_{3}}$$
 NH Me $\stackrel{\circ}{_{R}}$ NH $\stackrel{\circ}{_{NH}}$ $\stackrel{\circ}{_{NH}}$

PAGE 1-B

4.3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE

L5 156 SEA FILE=REGISTRY SSS FUL L3 L6 STR

65 NH2 34 Ċ 64 C 63 59 50 0 20 0 21 0 52 51 49 48 47 3 6 60 0 25 0 24 Ö 22 17 11 / 12 13 15 16 40

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 65

STEREO ATTRIBUTES: NONE

L7	125 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L12	59 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L16	73 SEA FILE=HCAPLUS ABB=ON PLU=ON "FAIRCLOTH G"/AU OR "FAIRCLOTH
	G T"/AU OR ("FAIRCLOTH GLYNN"/AU OR "FAIRCLOTH GLYNN T"/AU OR
	"FAIRCLOTH GLYNN T JR"/AU OR "FAIRCLOTH GLYNN THOMAS"/AU)
L17	15 SEA FILE=HCAPLUS ABB=ON PLU=ON "CUEVAS M"/AU OR ("CUEVAS
	MARCHANTE CARMEN"/AU OR "CUEVAS MARCHANTE MARIA DEL CARMEN"/AU)
L18	1 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND L17
L19	65 SEA FILE=HCAPLUS ABB=ON PLU=ON (L16 OR L17) AND (?TUMOR? OR
	?CANCER? OR ?NEOPLAS? OR ?MALIG?)
L20	58 SEA FILE=HCAPLUS ABB=ON PLU=ON (L18 OR L19) NOT L12

=> d ibib abs hitstr 120 1-58

L20 ANSWER 1 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:868555 HCAPLUS

TITLE: Kahalalide F and ES285: potent anticancer

agents from marine molluscs

AUTHOR (S): Faircloth, G.; Cuevas, C.

CORPORATE SOURCE: PharmaMar SA, Madrid, 28770, Spain

Progress in Molecular and Subcellular Biology (2006),

43 (Molluscs), 363-379

CODEN: PMSBA4; ISSN: 0079-6484

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

The marine environment is proving to be a very rich source of unique compds. with significant activities against cancer of several types. Finding the sources of these new chemical entities has made it necessary for marine and medical scientists to find enterprising ways to collaborate in order to sample the great variety of intertidal, shallow and deep-water sea life. Recently these efforts resulted in a first generation of drugs from the sea undergoing clin. trials. These include PharmaMar compds.: Yondelis, Aplidin, kahalalide F, ES285 and Zalypsis. Two of these compds., kahalalide F and ES285, have been isolated from the Indopacific mollusc Elysia rufescens and the North Atlantic mollusc

Spisula polynyma, resp.

REFERENCE COUNT: THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS 23 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:487280 HCAPLUS

· Induction of resistance to Aplidin in a human ovarian TITLE:

cancer cell line related to MDR expression

Tognon, Gianluca; Bernasconi, Sergio; Celli, Nicola; AUTHOR (S):

Faircloth, Glynn T.; Cuevas, Carmen; Jimeno,

Jose; Erba, Eugenio; D'Incalci, Maurizio Department of Oncology, Flow Cytometry Unit, Mario

Negri Institute, Milan, Italy

SOURCE: Cancer Biology & Therapy (2005), 4(12), 1325-1330

CODEN: CBTAAO; ISSN: 1538-4047

PUBLISHER: Landes Bioscience

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

Aplidin-resistant IGROV-1/APL cells were derived from the human ovarian

cancer IGROV-1 cell line by exposing the cells to increasing

concentration of Aplidin for eight months, starting from a concentration of 10 nM to a

final concentration of 4 μM . IGROV-1/APL cell line possesses five fold relative resistance to Aplidin. IGROV-1/APL resistant cell line shows the typical MDR phenotype: (1) increased expression of membrane-associated P-glycoprotein, (2) cross-resistance to drugs like etoposide, doxorubicin, vinblastine, vincristine, taxol, colchicine and the novel anticancer drug Yondelis (ET-743). The Pgp inhibitor cyclosporin-A restored the sensitivity of IGROV-1/APL cells to Aplidin by increasing the drug intracellular concentration The resistance to Aplidin was not due to the other proteins, such as LPR-1 and MRP-1, being expressed at the same level in resistant and parental cell line. The finding that cells over-expressing Pgp are resistant to Aplidin was confirmed in CEM/VLB 100 cells, that was found to be 5-fold resistant to Aplidin

Audet 10_531533 : ".

compared to the CEM parental cell line.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:319213 HCAPLUS

DOCUMENT NUMBER: 144:343581

TITLE: Ecteinascidin compounds as anti-inflammatory agents

INVENTOR(S): Allavena, Paola; D'Incalci, Maurizio; Faircloth,

Glynn Thomas

PATENT ASSIGNEE(S): Pharma Mar S.A., Sociedad Unipersonal, Spain; Ruffles,

Graham Keith

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GI

PA	PATENT NO.					KIND DATE			APPLICATION NO.							DATE			
WO	2006	0352	 44		A2 20060406			1	WO 2	005-		20050928							
WO	2006	0352	44		A3		2006	0831											
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚĖ,	KG,	KM,	KP,	KR,	KZ,		
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,		
		NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,		
		SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,	VN,		
		YU,	ZA,	ZM,	zw														
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,		
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,		
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,		
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,		
		KG,	KZ,	MD,	RU,	ΤJ,	TM												
PRIORITY						US 2004-614093P						P 20040928							
OTHER SOURCE(S):					MARPAT 144:343581														

AB The anti-inflammatory activity of ecteinascidin compds. was determined Ecteinascidin 743 (I) and other ecteinascidin compds. affect viability and

Ι

functions of monocyte/macophages. Examples include noncytotoxic concs. of I inhibit in vitro and in vivo macrophage differentiation, I shows selective cytotoxic effect on mononuclear phagocytes, I inhibits the production of inflammatory cytokines/chemokines, and I was compared with antineoplastic agents currently used in ovarian cancer.

L20 ANSWER 4 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:203200 HCAPLUS

DOCUMENT NUMBER:

144:425023

TITLE:

Quantitative analysis of Variolin analog (PM01218) in mouse and rat plasma by high-performance liquid chromatography/electrospray ionization tandem mass

spectrometry

AUTHOR (S):

Yin, . Jianming; Aviles, Pablo; Ly, Carl; Lee, William; Guillen, Maria Jose; Munt, Simon; Cuevas, Carmen;

Faircloth, Glynn

CORPORATE SOURCE:

SOURCE:

PharmaMar USA Inc., Cambridge, MA, 02139-4616, USA Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2006), 832(2),

268-273

CODEN: JCBAAI; ISSN: 1570-0232

PUBLISHER:

Elsevier B.V.

DOCUMENT TYPE: LANGUAGE:

Journal English

PM01218 is a novel marine-derived alkaloid and has shown potent growth inhibitory activity against several human cancer cell lines. A rapid and sensitive high performance liquid chromatog./tandem mass spectrometry (HPLC-MS/MS) method was developed and validated to quantify PM01218 in mouse and rat plasma. The lower limit of quantitation (LLOQ) was 0.05 ng/mL. The calibration curve was linear from 0.05 to 100 ng/mL (R2 > 0.999). The assay was specifically based on the multiple reaction monitoring (MRM) transitions at m/z 278.4→184.2, no endogenous material interfaced with the anal. of PM01218 and its internal standard from blank mouse and rat plasma. The mean intra- and inter-day assay accuracy remained below 15 and 8%, resp., for all calibration stds. and QC samples. The intra- and inter-day assay precision was less than 12.8 and 8.5% for all QC levels, resp. The utility of the assay was demonstrated by pharmacokinetics studies of i.v. (bolus) PM01218 on SD rats.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS 11 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:730756 HCAPLUS

DOCUMENT NUMBER:

143:278611

TITLE:

Combination of trabectedin and irinotecan is highly effective in a human rhabdomyosarcoma xenograft Riccardi, Anna; Meco, Daniela; Ubezio, Paolo;

AUTHOR (S):

Mazzarella, Giorgio; Marabese, Mirko; Faircloth, Glynn T.; Jimeno, Jose; D'Incalci, Maurizio;

Riccardi, Riccardo

CORPORATE SOURCE:

Department of Pediatric Oncology, Catholic University, Rome, Italy

SOURCE:

Anti-Cancer Drugs (2005), 16(8), 811-815

CODEN: ANTDEV; ISSN: 0959-4973 Lippincott Williams & Wilkins

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English

Our objective was to evaluate in vitro and in vivo the effect of the combination of trabectedin (Yondelis, ET-743) and irinotecan (CPT-11) or its major metabolite SN-38 in a human rhabdomyosarcoma cell line. The

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schedule trabectedin (1.h) followed by irinotecan or SN-38 (24 h) and the opposite sequence (irinotecan or SN-38 24 h followed by trabectedin 1 h) were analyzed in a rhabdomyosarcoma cell line. In vivo studies were conducted with trabectedin and irinotecan at the doses of 0.2 and 20 mg/kg, resp., simultaneously administered with a q4d + 3 schedule. In vitro studies indicated an overall additive effect [combination index (CI) relatively close to 1.0], with the former schedule slightly superior to the latter (at the IC50 effect levels: CI = 0.89 vs. 1.07). Neither transcription nor expression of DNA topoisomerase I was affected by trabectedin treatment. In vivo the therapeutic results of the combination were certainly more impressive: trabectedin and irinotecan combination caused a strong and long-lasting effect on tumor growth (tumor volume inhibition = 89%, log10 cell kill = 1.6), whereas each drug given as a single agent was only marginally active. The discrepancy between the in vitro and in vivo results suggests possible mechanisms involving host cells, other than tumor cells. The striking effects of the combination observed in vivo could be related to a combination of a direct cytotoxic and an anti-inflammatory indirect effect. The very marked and long-lasting effect of the trabectedin and irinotecan combination in vivo suggests a basis for a clin. evaluation in pediatric patients with rhabdomyosarcoma.

REFERENCE COUNT: THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS 15 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

2005:218200 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 142:430441

Development of a liquid chromatography/tandem mass TITLE:

spectrometry assay for the quantification of PM00104,

a novel antineoplastic agent, in mouse, rat,

dog, and human plasma

Yin, Jianming; Aviles, Pablo; Lee, William; Ly, Carl; AUTHOR(S):

Guillen, Maria Jose; Munt, Simon; Cuevas, Carmen;

Faircloth, Glynn

CORPORATE SOURCE: PharmaMar USA, Inc., Cambridge, MA, 02139-4616, USA

SOURCE:

Rapid Communications in Mass Spectrometry (2005),

19(5), 689-695

CODEN: RCMSEF; ISSN: 0951-4198

John Wiley & Sons Ltd. PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

A rapid and sensitive liquid chromatog./tandem mass spectrometry (LC/MS/MS) assay was developed and validated to quantify a novel antineoplastic agent, PM00104, in mouse, rat, dog, and human plasma. The method was validated to demonstrate the specificity, limit of quantification (LOQ), accuracy, and precision of measurements. calibration range for PM00104 was established using PM00104 stds. from 0.01-5.0 ng/mL in blank plasma. The selected reaction monitoring (SRM), based on the m/z 692.2 \rightarrow 218.2 transition, was specific for PM00104, and that based on the m/z 697.2 \rightarrow 218.2 transition was specific for PM00104 (13C2,2H3) (the internal standard, IS); no endogenous materials interfered with the anal. of PM00104 and IS from blank plasma. The assay was linear over the concentration range 0.01-5.0 ng/mL. The correlation coeffs. for the calibration curves ranged from 0.9981-0.9999. The mean intra-day and inter-day accuracies for all calibration stds. (n =8) ranged from 97-105% (≤5% bias) in human plasma, and the mean inter-day precision for all calibration stds. was less than 8.5%. mean intra- and inter-day assay accuracy for all quality control (QC) replicates in human plasma (n = 9), determined at each QC level throughout the validated runs, ranged from 96-112% (≤12% bias) and from 102-105%

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(\leq 5% bias), resp. The mean intra- and inter-day assay precision was less than 15.0 and 11.8% for all QC levels, resp. For the QC samples prepared in animal species plasma, the %CV values of the assays ranged from 1.8-8.8% in mouse plasma, from 3.7-13.8% in rat plasma, and from 3.0-7.2% in dog plasma. The assay accuracies ranged from 92-102% (\leq 8% bias) for all QC levels prepared in mouse plasma; ranged from 93-106% (\leq 7% bias) in rat plasma; and ranged from 95-114% (\leq 14% bias) in dog plasma. The assay was used to support preclin. pharmacokinetic and toxicokinetic studies and is currently used to measure PM00104 plasma concns. to support clin. trials.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:128729 HCAPLUS

DOCUMENT NUMBER: 142:348389

33

1972 2

TITLE: The unique biological features of the marine product

Yondelis (ET-743, trabectedin) are shared by its

analog ET-637, which lacks the C ring

AUTHOR(S): Erba, E.; Cavallaro, E.; Damia, G.; Mantovani, R.; Di

Silvio, A.; Di Francesco, A. M.; Riccardi, R.; Cuevas,

C.; Faircloth, G. T.; D'Incalci, M.

CORPORATE SOURCE: Department of Oncology, Mario Negri Institute for

Pharmacological Research, Milan, 20157, Italy

SOURCE: Oncology Research (2004), 14(11/12), 579-587

CODEN: ONREE8; ISSN: 0965-0407

PUBLISHER: Cognizant Communication Corp.

DOCUMENT TYPE: Journal LANGUAGE: English

It was previously suggested that the peculiar mechanism of action of the novel anticancer drug Yondelis (ET-743, trabectedin) was due to part of the mol., units A and B, binding to DNA in the minor groove, causing an alkylation at the N2 of quanine, while unit C protrudes out of DNA, possibly interacting with transcription factors or other DNA binding proteins. To test this hypothesis, we have compared the biol. activity and the mode of action of Yondelis with its analog ET-637, which has the same chemical structure except for the lack of the C ring. Yondelis and ET-637 showed similar cytotoxic potency and cell cycle perturbations. As already reported for Yondelis, the UV-96 cell line, deficient in ERCC-1, was less sensitive to ET-637 than the parental cell line. The binding of Yondelis or ET-637 to DNA-oligonucleotides was demonstrated by gel shift assay and SDS did not reverse the binding. Both compds. blocked the temperature-induced activation of the HSP40 promoter in the range of 1-10 nM. This study indicates that ET-637 acts similarly to Yondelis and demonstrates that the C ring of Yondelis may not be required for its biol. activity.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:69115 HCAPLUS

DOCUMENT NUMBER: 143:278434

TITLE: Molecular characterisation of two human cancer

cell lines selected in vitro for their chemotherapeutic drug resistance to ET-743

AUTHOR(S): Marchini, S.; Marrazzo, E.; Bonomi, R.; Chiorino, G.;

Zaffaroni, M.; Weissbach, L.; Hornicek, F. J.; Broggini, M.; Faircloth, G. T.; D'Incalci,

.

CORPORATE SOURCE: Laboratory of Molecular Pharmacology, Department of

Audet .10 531533

Oncology, Istituto di Ricerche Farmacologiche "Mario

Negri", Milan, 20157, Italy

European Journal of Cancer (2005), 41(2), 323-333 SOURCE:

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

ET-743 (Yondelis, Trabectedin) isolated from the tunicate Ecteinascidia AΒ turbinata, is being tested in phase II clin. trials in Europe and the United States of America (USA). Studies with different solid

tumors have shown antitumor activity in advanced, pre-treated sarcomas as well as in drug-resistant breast and ovarian cancer. The primary mechanism of action for ET-743 has not been fully elucidated and different models have been suggested to explain its mol. mechanism of action. ET-743 binds tightly to the minor groove of DNA and previous data have suggested that ET-743 acts by interfering with RNA transcription. To further investigate the mechanism of in vitro drug resistance, we evaluated the gene expression profile in ovarian and chondrosarcoma cell lines selected for resistance to ET-743. We found 70 genes whose expression was modulated in both drug-resistant cell lines when compared with their resp. parental drug-sensitive cell lines. This pattern of gene expression seems to be selective for ET-743-resistant cells, since ovarian cancer cells resistant to paclitaxel did not share the same gene expression changes. Data presented in this study reveal different mol. pathways that could be involved in the cellular mechanism of ET-743 resistance.

THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 40 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 9 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:817412 HCAPLUS

DOCUMENT NUMBER: 141:307511

TITLE: Antitumor spisulosine compounds

Rinehart, Kenneth L.; Warwick, Robert A.; Avila, INVENTOR(S):

Jesus; Fregeau Gallagher, Nancy L.; Garcia Gravalos,

Dolores; Faircloth, Glynn T.

Board of Trustees of the University of Illinois, USA PATENT ASSIGNEE(S):

U.S., 23 pp., Cont.-in-part of U.S. 6,107,520. SOURCE:

CODEN: USXXAM

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6800661	В1	20041005	US 1999-386724	19990831
US 6107520	Α	20000822	US 1998-58456	19980410
US 38793	E	20050906	US 2002-219050	20020814
US 2004147615	A1	20040729	US 2003-693174	20031023
US 2006183806	A9	20060817		
US 7109244	B2	20060919		
PRIORITY APPLN. INFO.:			US 1997-43326P F	19970415
			US 1997-43599P F	19970415
			US 1998-58456 A	2 19980410
			US 1999-386724 A	1 19990831

AB Investigation of the activity of exts. of the clam Spisula polynyma has led to antitumor long-chain, straight-chain alkane or alkene compds. which have a 2-amino group and a 3-hydroxy group. Isolation and preparation of spisulosine compds. are described.

1.0 531533 Audet

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 10 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:780551 HCAPLUS

DOCUMENT NUMBER:

141:254554

TITLE:

33

Aplidine for multiple myeloma treatment

INVENTOR(S):

Bertino, Joseph R.; Medina, Daniel; Faircloth,

Glynn Thomas; Mitsiades, Constantine S.

PATENT ASSIGNEE(S):

Dana-Faber Cancer Institute, Inc., USA; Ruffles,

Graham Keith

SOURCE:

PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.						KIND DATE			APPLICATION NO.									
							_									-			
	WO	2004	0804	77		A 1		2004	0923	7	WO 2	004-0	3B10	62		2	0040	312	
	WO	2004	0804	77		C1		2004	1111										
		W:	AE.	AG.	AL.	AM.	, AT, AU, AZ,				BB.	BG.	BR.	BW.	BY.	BZ.	CA.	CH.	
												EC,							
												JP,							
				-				-			-	MK,			-				
												SC,							
		DIA.			-	•						UZ,				•	-		
		RW:										SZ,							
												BG,							
			•					•				MC,		•	•		•	-	
			•		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	
			TD,																
	ΑU	2004	2188	83		A1		2004	0923	7	AU 2	004-2	2188	83		2	0040	312	
	CA	2519	789			AA 20040923				CA 2004-2519789						20040312			
	ΕP	1603	584			A1		2005	1214]	EP 2	004-	7200	81		2	0040	312	
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK	
	CN	1761	480			Α		2006	0419		CN 2	004-8	3000	6724		2	0040	312	
	JP	2006	5198:	28		T2		2006	0831	· ·	JP 2	006-	5059	57		2	0040	312	
	JP 2006519828 NO 2005004668																0051		
										3 US 2006-548710							00604	111	
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Aplidine and aplidine analogs are used in the manufacture of a medicament for treating multiple myeloma.

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 11 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

6

ACCESSION NUMBER:

2004:780508 HCAPLUS

DOCUMENT NUMBER:

141:271548

TITLE:

Improved antitumor treatments using aplidine

and aplidine analogs in combination with other drugs

INVENTOR (S):

Barnejee, Debabrata; Bertino, Joseph R.; Faircloth, Glynn Thomas; Guray, Saydam;

Jimeno, Jose

PATENT ASSIGNEE(S):

Pharma Mar S.A., Spain PCT Int. Appl., 43 pp.

SOURCE:

Audot 10 531533

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PAT	CENT 1	NO.			KIND DATE			1	APPI	LICAT:		DATE					
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	WO	2004	0804	21		A2		2004	0923	1	WO 2	2004-T	JS76	06		20040312		
	WO	2004	0804	21		A 3		2005	0609									
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	, JΡ,	KE,	KG,	KP,	KR,	KZ,	LC,
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		2006										2006-					20040	
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	US	2006	1782	98		A1		2006	0810			2005-5				_	20051	
PRIO	RITY	APP	LN.	INFO	.:							2003-4					20030	
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Aplidine and aplidine analogs are of use for the treatment of AB cancer, in particular in the treatment of leukemias and lymphomas, especially in combination therapies.

L20 ANSWER 12 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:462251 HCAPLUS

DOCUMENT NUMBER:

142:32543

TITLE:

Antiangiogenic activity of aplidine, a new agent of

marine origin

AUTHOR (S):

Taraboletti, G.; Poli, M.; Dossi, R.; Manenti, L.;

Borsotti, P.; Faircloth, G. T.; Broggini, M.; D'Incalci, M.; Ribatti, D.; Giavazzi, R.

CORPORATE SOURCE:

Department of Oncology, Mario Negri Institute,

Bergamo, 24125, Italy

SOURCE:

British Journal of Cancer (2004), 90(12), 2418-2424

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal

LANGUAGE: English

The antineoplastic compound aplidine, a new marine-derived depsipeptide, has shown preclin. activity in vitro on hematol. and solid tumor cell lines. It is currently in early phase clin. trials. The exact mechanism of action of this anticancer agent still needs to be clarified. We have previously reported that aplidine blocks the secretion of the angiogenic factor vascular endothelial growth factor (VEGF) by the human leukemia cells MOLT-4, suggesting a possible effect on tumor angiogenesis. This study was designed to investigate the antiangiogenic effect of aplidine. In vivo, in the chick embryo allantoic

membrane (CAM) assay, aplidine inhibited spontaneous angiogenesis, angiogenesis elicited by exogenous VEGF and FGF-2, and induced by VEGF over-expressing 1A9 ovarian carcinoma cells. In vitro, at concns. achievable in the plasma of patients, aplidine inhibited endothelial cell functions related to angiogenesis. It affected VEGF- and FGF-2-induced endothelial cell proliferation, inhibited cell migration and invasiveness assessed in the Boyden chamber and blocked the production of matrix metalloproteinases (MMP-2 and MMP-9) by endothelial cells. Finally, aplidine prevented the formation of capillary-like structures by endothelial cells on Matrigel. These findings indicate that aplidine has antiangiogenic activity in vivo and inhibits endothelial cell functional responses to angiogenic stimuli in vitro. This effect might contribute to the antineoplastic activity of aplidine.

REFERENCE COUNT:

An in a

THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS 40 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 13 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

2004:267824 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 141:270761

TITLE: New marine derived anticancer therapeutics -

a journey from the sea to clinical trials

AUTHOR (S): Jimeno, J.; Faircloth, G.; Fernandez

Souse-Faro, J. M.; Scheuer, P.; Rinehart, K.

CORPORATE SOURCE:

PharmaMar R & D, Madrid, Spain Marine Drugs (2004), 2(1), 14-29 CODEN: MDARE6; ISSN: 1660-3397

URL: http://www.mdpi.net/marinedrugs/papers/papers03/m

d101005.pdf

PUBLISHER:

SOURCE:

MDPI Center

DOCUMENT TYPE:

Journal; General Review; (online computer file)

LANGUAGE: English

A review. Nature has been instrumental as a source for therapeutics. Despite the fact that we live in an oceanic planet, a number of tech. factors have historically hampered the evolution of a marine-based chamanic medicine. With the implementation of scuba diving tools and the development of sophisticated instruments for the isolation and elucidation of structures of natural products from marine organisms, major advances have been made in the discovery of marine derived therapeutics. availability of ARA-C, a nucleoside analog that is a basic component in the treatment of acute myeloid leukemia, and its fluorinated analog Gemcitabine, an important therapeutic tool in the treatment of pancreatic cancer and in non small cell lung cancer, is a solid proof and validation of the potential of this approach. As a result of our discovery and developmental program, three innovative compds. with novel mechanisms of action: ET-743, Aplidin and Kahalalide F, have been shown to display a pos. therapeutic index and activity in resistant solid tumors that supports the ongoing clin. phase III/II trials. ET-743 represents the first active agent against sarcomas developed in the past 25 yr and has demonstrated a therapeutic potential in pretreated ovarian cancer. Several chemical entities are under advanced preclin. testing and addnl. candidates for clin. development are emerging, including compds. hitting a specific target. Moreover, the development of a given marine candidate implies the collaboration of an interdisciplinary team special focused on supply, formulation, pharmacogenetics and preclin. toxicol.

REFERENCE COUNT:

THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS 71 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2004:143159 HCAPLUS

Audet 10_531533 4: . . .

DOCUMENT NUMBER:

140:199492

TITLE:

Preparation and antitumor activity of

analogs of lamellarins

INVENTOR(S):

Bailly, Christian; Francesch Solloso, Andres; Mateo Urbano, Maria Cristina; Jimenez Guerrero, Jose

Urbano, Maria Cristina; Jimenez Guerrero, Jose Antonio; Pastor Del Castillo, Alfredo; Cuevas

Marchante, Carmen

PATENT ASSIGNEE(S):

Pharma Mar, S.A.U., Spain; Ruffles, Graham Keith

SOURCE: PCT Int. Appl., 222 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	KIND DATE			APPLICATION NO.						DATE							
						-									-		
WO	2004	0149	17		A2 20040219			WO 2003-GB3541						2	0030	813	
WO	2004	0149	17		<b>A3</b>		2004	0513									
	W:	AE.	AG.	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
						-	DK,										
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JP	2005	5365	29		T2		2005	1202		JP 2	004-	5270'	72		2	0030	813
	2005													0050	310		
US		A1		2006	0803		US 2	005-	5241	51		2	0050	801			
PRIORITY APPLN. INFO.:										GB 2	002-	1881	6		A 2	0020	813
										WO 2	003-	GB354	41	,	W 2	0030	813
OTHER SOURCE(S):					MARPAT 140:19949			92									

$$R^{5}$$
 $R^{9}$ 
 $R^{3}$ 
 $R^{2}$ 
 $R^{1}$ 
 $R^{1}$ 

II

Ι

AB The present invention discloses preparation of lamellarin analogs, such as I [X = N, O, S; R1, R2, R3, R4, R5, R6, R7, R8, R9 = H, OH, OR, SH, SR, SO2R, NHR, N(R)2, N:R, NHCOR, N(COR)2, NHSO2R, NO2, PO(R)2, PO2R, C(:0)H, C(:0)R, CO2H, CO2R, OPO(R)2, OPO2(R)2, OC(:0)H, OC(:0)R, N:C(R)2, un(substituted) C1-C12 alkyl, haloalkyl, alkenyl, alkynyl, aryl, aralkyl, heteroarom.; R = H, OH, NO2, NH2, SH, CN, halo, :0, C(:0)H, COCH3, CO2H, (un) substituted C1-C18 alkyl, alkenyl, alkynyl, aryl, alkoxyl, aminoalkyl, amino acid, thioalkyl, alkylsulfinyl, alkylsulfonyl; R1R2, R2R3, R3R4, R3R9, R4R9, R9R5, R9R6, R6R7, R7R8 = carbocyclic or heterocyclic ring; dotted bond = single bond or double bond], or a pharmaceutically acceptable salt, derivative, prodrug or stereoisomer thereof. Thus, lamellarin derivative II (R = COCH2CH2C6H5) was prepared via a multistep reaction sequence starting from 6-isopropoxy-7-methoxy-3,4dihydroisoquinoline, iodo-acetic acid 5-isopropoxy-2-(4-isopropoxy-3methoxyphenyl-ethynyl)-4-methoxyphenyl ester and hydrocinnamoyl chloride. The prepared lamellarin analogs were tested for antitumor activity against erythroleukemia, lung carcinoma, malignant melanoma, colon adenocarcinoma, prostate carcinoma, breast adenocarcinoma, ovary adenocarcinoma, cervix epithelioid carcinoma and pancreatic epitheloid carcinoma.

ANSWER 15 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:101159 HCAPLUS

DOCUMENT NUMBER: TITLE:

140:145931 Total synthesis of myriaporones as antitumor

INVENTOR (S):

Perez Alvarez, Marta; Del Pozo Losada, Carlos;

Francesch Solloso, Andres; Cuevas Marchante,

Carmen

PATENT ASSIGNEE(S):

Pharma Mar, S.A.U., Spain; Ruffles, Graham Keith

SOURCE:

PCT Int. Appl., 128 pp.

Patent

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIND DATE			4	APPL	ICAT		DATE							
WO	2004	0114	 58		A1	-	2004	0205	,	WO 2	 003-	 GB33:	27	<b>-</b> -	2	0030	730		
	W:	ΑE,	AG,	ΑL,	AM,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	KZ,	LC,	LK,	LR,		
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,		
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,		
		TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,		
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,		
		FI,	FR,	GB,	GR,	ΗU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,		
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
CA	2494	532			AA		2004	0205		CA 2	003-	2494	532		2	0030	730		
ΑU	2003	2489	84		A1		2004	0216		AU 2	003-	2489	34		20030730				
EΡ	1532	139			<b>A1</b>		2005	0525	:	EP 2	003-	7712	10		2	0030'	730		
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,		
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CN	CN 1684956						2005	1019	(	CN 2	003-	8233	14		2	0030	730		
JΡ	2006		T2		2006	0209	9 JP 2004-523987							20030730					
ИО	NO 2005001037				Α		2005	0413	3 NO 2005-1037							20050225			
US	US 2006084819				A1	20060420			US 2005-523172							20050901			

PRIORITY APPLN. INFO.: GB 2002-17638 A 20020730 WO 2003-GB3327 20030730

MARPAT 140:145931 OTHER SOURCE(S):

GI

Myriaporones of formula I [R = H, trialkylsilyl, acyl, etc.; R1 = H, AB (substituted) OH, acyloxy, SH, CHO, CO2H, CH2OH, NH2, etc.] are prepared as antitumor agents. Thus, II was prepared in several steps. and shown to have activity against a number of tumor cell lines.

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 6 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 16 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:980288 HCAPLUS

DOCUMENT NUMBER: 141:153093

In vitro interaction between Ecteinascidin 743 TITLE:

(ET-743) and radiation, in relation to its cell cycle

effects

Simoens, C.; Korst, A. E. C.; De Pooter, C. M. J.; AUTHOR(S):

Lambrechts, H. A. J.; Pattyn, G. G. O.;

Faircloth, G. T.; Lardon, F.; Vermorken, J. B.

Department of Medical Oncology, Laboratory of Cancer CORPORATE SOURCE:

Research and Clinical Oncology, University of Antwerp

(UIA/UZA), Antwerp, B-2610, Belg.

British Journal of Cancer (2003), 89(12), 2305-2311 SOURCE:

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

Ecteinascidin 743 (ET-743) is a new marine-derived agent with promising AB activity against a number of solid tumors. In four human tumor cell lines, the interaction between ET-743 and radiation was investigated in relation to the effects of ET-743 on the cell cycle, in vitro. Cell survival was measured based on quant. staining of cellular protein by sulforhodamine B. A 24 h treatment with ET-743 before radiation resulted in a moderate increase in radiosensitivity in three out of four cell lines. Dose enhancement factors ≥1.8 were observed for concns. resulting in 52, 46 and 30% cell kill in ECV304, H292 and CAL-27, resp., whereas in A549 no radiosensitization was observed (no significant increase in radiosensitivity). According to the combination index anal., synergism was observed only in ECV304 and CAL-27 cells. A 24 h incubation with ET-743 resulted in a concentration-dependent G2/M block, which might explain the moderate radiosensitizing effects in ECV304 and H292. The lack of

radiosensitization in A549 might be due to the S phase delay preceding the G2/M block at the moment of radiation, which only occurred in this cell line. In conclusion, ET-743 has moderate cell line-dependent radiosensitizing properties; however, only when cytotoxic concns. of ET-743 are used. In one of the four cell lines tested, no radiosensitization was observed

REFERENCE COUNT:

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS 34 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 17 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:869631 HCAPLUS

DOCUMENT NUMBER:

140:210099

TITLE:

33

Use of CFU-GM assay for prediction of human maximum

tolerated dose of a new antitumoral drug:

Yondelis (ET-743)

AUTHOR (S):

Gomez, Susana G.; Bueren, Juan A.; Faircloth,

Glynn; Albella, Beatriz

CORPORATE SOURCE:

S.A. Poligono Industrial La Mina, PharmaMar, Madrid,

28770, Spain

SOURCE:

Toxicology in Vitro (2003), 17(5/6), 671-674

CODEN: TIVIEQ; ISSN: 0887-2333

PUBLISHER:

Elsevier

DOCUMENT TYPE: Journal LANGUAGE: English

Acute cytotoxic exposure causes decreases in bone marrow progenitors that precedes the neutrophil nadir. Expts. in animal models reveal a relationship between the reduction in granulocyte-macrophage progenitors (CFU-GM) and the decrease in absolute neutrophil count [Toxicol. Pathol. 21 (1993) 241]. Recently, the prevalidation of a model for predicting acute neutropenia by the CFU-GM assay has been reported [Toxicol. In Vitro 15 (2001) 729]. The model was based on prediction of human MTD by adjusting the animal-derived MTD for the differential sensitivity between CFU-GM from animal species and humans. In this study, this model has been applied on a new antitumoral drug, Yondelis (Ecteinascidin; ET-743). Preclin. studies showed that hematotoxicity was the main side effect in mice, being the MTD of 600 µg/m2 [Drugs Future 21 (1996) 1155]. The sensitivity of myeloid progenitors was higher in mice than in humans, with IC90 values of  $0.69\pm0.22$  nM and  $1.31\pm0.21$  nM for murine and human CFU-GMs resp. This study predicts a human MTD of  $1145 \mu g/m^2$ . The reported human MTD of ET-743 given as a 24-h continuous infusion every 3 wk is 1800  $\mu$ g/m² [J. Clin. Oncol. 19 (2001) 1256]. Since our predicted MTD is within fourfold of the actual MTD (the interspecies variation in tolerated dose due to differences in clearance rates, metabolism pathways and infusion rate) the result confirms the profit of the prediction model.

REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS 12 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 18 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:645662 HCAPLUS

DOCUMENT NUMBER:

140:174543

TITLE:

The combination of yondelis and cisplatin is

synergistic against human tumor xenografts

AUTHOR (S):

D'Incalci, M.; Colombo, T.; Ubezio, P.; Nicoletti, I.;

Giavazzi, R.; Erba, E.; Ferrarese, L.; Meco, D.; Riccardi, R.; Sessa, C.; Cavallini, E.; Jimeno, J.;

Faircloth, G. T.

CORPORATE SOURCE:

Department of Oncology, Istituto di Ricerche

Farmacologiche "Mario Negri", Milan, 20157, Italy European Journal of Cancer (2003), 39(13), 1920-1926

SOURCE:

### Audet 10_531533 .410 .

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

YondelisTM (trabectidin, ET-743) is a marine natural product that has shown activity both in preclin. systems and in human malignancies such as soft tissue sarcoma and ovarian cancers that are resistant to previous chemotherapies. Mol. pharmacol. studies indicated that Yondelis interacts with DNA and DNA repair systems in a way that is different from cisplatin (DDP). The current study was designed to investigate the effects of the combination of Yondelis and DDP in human cancer cell lines and in xenografts derived from different tumors. The in vitro studies performed in human TE-671 rhabdomyosarcoma, Igrov-1 and 1A9 human ovarian carcinoma cell lines showed additive effects or slight synergism. Several human tumor xenografts, such as TE-671 rhabdomyosarcoma, SK-N-DX neuroblastoma, FADU head and neck, LX-1 non-small cell lung cancer (NSCLC), H-187 melanoma and SKOV HOC 8 ovarian carcinoma, showed an antitumor effect for the combination that was greater than that of each drug when given as a single agent. No consistent changes in the activity were observed if Yondelis and DDP were given 1 h apart in sequence or simultaneously. An orthotopically transplanted human ovarian cancer HOC 8 growing in the peritoneal cavity of nude mice was used that is insensitive to Yondelis alone and only moderately sensitive to DDP alone. The combination of the two drugs produced a dramatic increase of survival lasting several months. In conclusion, the combination of Yondelis and DDP is synergistic in vivo (i.e. the antitumor effect is greater than that of each drug used as a single agent at the maximum tolerated dose (MTD)) in different human tumor xenografts. The two drugs can be combined at the MTD of each drug, thus indicating there are no overlapping toxicities. These results provide a rationale for testing the combination of Yondelis and DDP in the clinic.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 19 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:638934 HCAPLUS

DOCUMENT NUMBER: 140:283822

TITLE: Development of a liquid chromatography/tandem mass

spectrometry assay for the quantification of Aplidin,

a novel marine-derived antineoplastic agent,

in human plasma

AUTHOR(S): Yin, Jianming; Aviles, Pablo; Lee, William; Ly, Carl;

Floriano, Pablo; Ignacio, Manzanares; Faircloth,

Glynn

CORPORATE SOURCE: PharmaMar USA, Inc., Cambridge, MA, 02139-4616, USA

SOURCE: Rapid Communications in Mass Spectrometry (2003),

17(16), 1909-1914

CODEN: RCMSEF; ISSN: 0951-4198

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB A rapid and sensitive liquid chromatog./tandem mass spectrometry (LC/MS/MS) assay was developed and validated to quantify a novel marine-derived depsipeptide, Aplidin, in human plasma. The method was validated to demonstrate the specificity, recovery, limit of quantitation (LOQ), accuracy, and precision of measurements. The calibration range for Aplidin was established using Aplidin stds. from 0.05-50 ng/mL in blank human plasma. The multiple reaction monitoring, based on the transition m/z 1110.7→295.3, was specific for Aplidin, and that based on the

### Audet 10_531533

transition m/z 1112.6 $\rightarrow$ 297.3 was specific for didemnin B (the internal standard); no endogenous materials interfered with the anal. of Aplidin and didemnin B from blank human plasma. The assay was linear over the concentration range 0.05-50.0 ng/mL. The correlation coeffs. for the calibration curves ranged from 0.9979 to 0.9999. The mean intra- and interday accuracies for all calibration stds. (n = 12) ranged from 97 to 106% (≤6% bias), and the mean interday precision for all calibration stds. was less than 8.3%. The mean intra- and interday assay accuracy for all quality control replicates (n = 12), determined at each QC level throughout the validated runs, remained below 12 and 7%, resp. The mean intra- and interday assay precision was less than 13.1 and 10.7% for all QC levels, resp. The assay is currently used to measure Aplidin plasma concns. to support clin. trials.

REFERENCE COUNT:

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 20 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

14

ACCESSION NUMBER:

2003:616930 HCAPLUS

DOCUMENT NUMBER:

140:156856

TITLE:

Effect of aplidine in acute lymphoblastic leukaemia

AUTHOR(S):

Erba, E.; Serafini, M.; Gaipa, G.; Tognon, G.; Marchini, S.; Celli, N.; Rotilio, D.; Broggini, M.;

Jimeno, J.; Faircloth, G. T.; Biondi, A.;

D'Incalci, M.

CORPORATE SOURCE:

Department of Oncology, Flow Cytometry Unit, Istituto

di Ricerche Farmacologiche 'Mario Negri', Milan,

62-20157, Italy

SOURCE:

British Journal of Cancer (2003), 89(4), 763-773

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal English

LANGUAGE: The cytotoxic effect of aplidine was investigated on fresh leukemia cells derived from children with B-cell-precursor (BCP) acute lymphoblastic leukemia (ALL) by using stromal-layer culture system and on four cell lines, ALL-PO, Reh, ALL/MIK and TOM-1, derived from patients with ALL with different mol. genetic abnormalities. In ALL cell lines aplidine was cytotoxic at nanomolar concns. In the ALL cell lines the drug-induced cell death was clearly related to the induction of apoptosis and appeared to be p53-independent. Only in ALL-PO 20 nM aplidine treatment caused a block of vascular endothelial growth factor (VEGF) secretion and down-regulation of VEGF-mRNA, but aplidine cytotoxicity does not seem to be related to VEGF inhibition since the sensitivity of ALL-PO cells to aplidine is comparable to that observed for the other cells used. Aplidine induced a G1 and a G2 M block in ALL cell lines. In patient-derived leukemia cells, aplidine induced a strong cytotoxicity evidenced in a stroma-supported immunocytometric assay. Cells from children with genetic abnormalities such as t(9;22) and t(4;11) translocations, associated with an inferior treatment outcome, were sensitive to aplidine to the same extent as that observed in other BCP-ALL cases. Aplidine exerted a strong cell killing effect (>88%) against primary culture cells from five relapsed ALL cases, at concns. much lower than those reported to be achieved in plasma of patients receiving aplidine at recommended doses. Taken together these data suggest that aplidine could be a new anticancer drug to be investigated in ALL patients resistant to available therapy. 38

REFERENCE COUNT:

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## Audet 10 531533

ACCESSION NUMBER:

2003:584509 HCAPLUS

DOCUMENT NUMBER:

139:332249

TITLE:

Validation of a sensitive assay for thiocoraline in mouse plasma using liquid chromatography-tandem mass

spectrometry

AUTHOR (S):

Yin, Jianming; Aviles, Pablo; Lee, William; Ly, Carl;

Guillen, Maria Jose; Calvo, Pilar; Manzanares,

Ignacio; Faircloth, Glynn

CORPORATE SOURCE:

SOURCE:

PharmaMar USA, Inc., Cambridge, MA, 02139-4616, USA Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2003), 794(1),

89-98

CODEN: JCBAAI; ISSN: 1570-0232

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal

English

LANGUAGE:

A sensitive HPLC-tandem mass spectrometry assay for thiocoraline, an antitumor depsipeptide, in mouse plasma is described.

Echinomycin, a quinoxaline peptide, was used as an internal standard Thiocoraline was recovered from the mouse plasma using protein precipitation with

MeCN and followed by solid-phase extraction of the supernatant. The mobile phase consisted of MeOH (0.1% formic acid) -H2O (0.1% formic acid) (90:10, volume/volume). The anal. column was a YMC C18. The standard curve was linear from 0.1 to 50 ng/mL (R2>0.99). The lower limit of quantitation was 0.1 ng/mL. The assay was specific based on the multiple reaction monitoring transitions at m/z 1157  $\rightarrow$  215 and m/z 1101  $\rightarrow$  243 for thiocoraline and the internal standard, echinomycin, resp. The mean intra- and inter-day assay accuracies remained <5 and 12%, resp., for all calibration stds. and quality control (QC) samples. The intra- and inter-day assay precisions were <11.4 and 9.5% for all QC levels, resp. The utility of the assay was demonstrated by a pharmacokinetic study of i.v. (bolus) thiocoraline on CD-1 mice. Thiocoraline was stable in mouse plasma in an ice-water bath for 6 h and for three freeze-thaw cycles. The reconstituted thiocoraline after extraction and drying sample process was stable in the autosampler for over 24 h. The assay was able to quantify thiocoraline in plasma up to 48 h following dose. Pharmacokinetic anal. showed that thiocoraline has distinct pharmacokinetic profiling when dosed in different formulation solns. The assay is currently used to measure thiocoraline plasma concns. in support of a project to develop a suitable formulation with a desirable pharmacokinetic profile.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS 11 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 22 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:548630 HCAPLUS

DOCUMENT NUMBER:

140:174525

TITLE:

Effective combination of ET-743 and doxorubicin in

sarcoma: preclinical studies

AUTHOR(S):

Meco, Daniela; Colombo, Tina; Ubezio, Paolo;

Zucchetti, Massimo; Zaffaroni, Marco; Riccardi, Anna;

Faircloth, Glynn; Jose, Jimeno; D'Incalci,

Maurizio; Riccardi, Riccardo

CORPORATE SOURCE:

Division of Pediatric Oncology, Catholic University of

Rome, Rome, Italy

SOURCE:

Cancer Chemotherapy and Pharmacology (2003), 52(2),

131-138

CODEN: CCPHDZ; ISSN: 0344-5704

PUBLISHER:

Springer-Verlag

DOCUMENT TYPE:

Journal

LANGUAGE: English

The purpose of this study was to investigate the cytotoxic and antitumor effects of the combination of the novel anticancer drug ET-743 and doxorubicin (Dx) and to determine whether any pharmacokinetic interaction occurs in sarcoma-bearing mice. The cytotoxicity of each drug and of their combinations was assessed in the rhabdomyosarcoma cell line TE-671 by a clonogenic assay, and isobologram anal. was performed to detect any synergistic, additive or antagonistic effects. The antitumor activities of each drug and of the combinations were also evaluated in nude mice transplanted s.c. with human TE-671 rhabdomyosarcoma and in C3H female mice injected i.v. with UV2237 M fibrosarcoma or with the Dx-resistant subline UV2237 M-ADM which over-expresses Pgp. Antitumor activity was evaluated by monitoring the TE-671 tumor volume over time and, in the case of the murine fibrosarcomas, by evaluation of lung deposits at autopsy quantified by determining lung weight Pharmacokinetic studies were performed

in

TE-671-bearing mice. ET-743 was determined in plasma by an HPLC-MS method and Dx in plasma and tissue by an HPLC method with fluorescence detection. The combination of ET-743 and Dx was found to be additive with the average combination index slightly lower than 1 at all survival levels, suggesting weak synergism. In TE-671 tumors in vivo the activity of ET-743 or Dx given alone was marginal, whereas the combination produced a significant antitumor effect. The log cell kill (LCK) values were 0.13 and 0.33 for ET-743 and Dx alone, whereas they ranged from 0.85 to 1.12 for the combination. Giving ET-743 1 h before Dx slightly enhanced the effect (LCK 1.12) compared with giving the drugs simultaneously (LCK 0.85) or in the opposite sequence (LCK 0.92). In UV2237 M fibrosarcoma, both Dx and ET-743 showed an effect in reducing the weight of lung metastases, although the combination of the two drugs was not superior to each drug alone. In UV2237 M-ADM tumors neither of the two drugs was active, whereas the combination, particularly when the two drugs were given simultaneously, produced a significant effect. Plasma levels of ET-743 and Dx were not significantly different when the drugs were given alone or in combination. The concns. of Dx in tissues including tumor, liver, heart and kidney were found to be the same whether the drug was given alone or in combination with ET-743. These results indicate that ET-743 and Dx in combination produce an additive effect against human sarcoma cells, reinforcing the idea that they act by a different mechanism of action. In mice no pharmacokinetic interaction between the two drugs was found. The observed activity in UV2237 M-ADM and in human TE-671 sarcoma suggests that the combination of the two drugs could be effective for tumors displaying low sensitivity to each drug given alone. Based on these findings a phase I study on the combination of the two drugs was recently initiated.

REFERENCE COUNT:

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 23 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:493914 HCAPLUS

DOCUMENT NUMBER: 140:354

TITLE: In vitro cytotoxicity of aplidin and crossresistance

with other cytotoxic drugs in childhood leukemic and normal bone marrow and blood samples: a rational basis

for clinical development

AUTHOR(S): Bresters, D.; Broekhuizen, A. J. F.; Kaaijk, P.;

Faircloth, G. T.; Jimeno, J.; Kaspers, G. J.

L.

CORPORATE SOURCE: Department of Pediatric Hematology/Oncology, VU

University Medical Center, Amsterdam, 1081, Neth.

Audet 10 531533

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SOURCE: Leukemia (2003), 17(7), 1338-1343

CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

To determine the potential of aplidin as a cytotoxic agent in pediatric leukemia, we tested bone marrow (BM) and peripheral blood (PB) samples (n=72) of children with different types of leukemia and healthy children in the methyl-thiazol-tetrazolium assay. Also, we compared these results with other cytotoxic drugs. Aplidin was cytotoxic in vitro at nanomolar concns., in a dose-dependent fashion. L-carnitine, that is applied in clin. studies to prevent myotoxicity caused by aplidin, had no effect on aplidin cytotoxicity in vitro. Aplidin cytotoxicity in vitro was not different when initial and relapsed acute lymphoblastic leukemia (ALL) or initial ALL and initial acute myeloid leukemia were compared. However, normal BM (n=19) and PB (n=13) cells were more resistant to aplidin than leukemic cells (median two- to seven-fold, P=0.001 and median four- to 11-fold, P<0.0001, resp.). In leukemia samples, no significant crossresistance between aplidin and other cytotoxic drugs was found, except for a trend for correlation with 2',2'-difluorodeoxycytidine  $(\rho=0.71, P=0.02)$ . In normal BM samples, significant crossresistance with the epipodophyllotoxins was found, which is not readily explained by the currently known mechanisms of action of aplidin. In conclusion, we show that aplidin has selective cytotoxicity in vitro towards childhood leukemia cells and generally lacks crossresistance with other known cytotoxic drugs, which warrants clin. studies. Leukemia (2003) 17, 1338-1343.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 24 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:196182 HCAPLUS

DOCUMENT NUMBER: 139:285666

TITLE: Antiangiogenesis Treatment Combined with Chemotherapy

Produces Chondrosarcoma Necrosis

AUTHOR(S): Morioka, Hideo; Weissbach, Lawrence; Vogel, Tikva;

Nielsen, G. Petur; Faircloth, Glynn T.;

Shao, Li; Hornicek, Francis J.

CORPORATE SOURCE: Orthopedic Research Laboratories, Harvard Medical

School, Boston, MA, 02114, USA

SOURCE: Clinical Cancer Research (2003), 9(3), 1211-1217

CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

AB A combination therapy protocol using a marine chemotherapeutic and antiangiogenic mol. was tested in a mouse tumor xenograft model for the ability to curtail the growth of a human chondrosarcoma (CHSA). Ecteinascidin-743 (ET-743), a marine-derived chemotherapeutic, was effective at slowing the growth of a primary CHSA. Plasminogen-related protein B, which antagonizes various endothelial cell activities, also elicited a significant inhibition of neoplastic growth, albeit with reduced effectiveness. The combination of the two agents resulted in only a modest further repression of tumor growth over that associated with ET-743 treatment alone, as measured by tumor volume (82% vs. 76% inhibition, resp.). However, anal. of the extent of tumor necrosis and vascularization of the tumor revealed that the coadministration of the two compds. was clearly more effective, eliciting a 2.5-fold increase in tumor necrosis relative to single-agent treatment. The combination therapy also was most effective

at antagonizing tumor-associated microvessel formation, as assessed by CD31 immunostaining, suggesting that combination therapy may hold promise for treating CHSA. Tumor necrosis produced by combination therapy of ET-743 and recombinant plasminogen-related* protein B was also significantly greater than that produced by conventional doxorubicin treatment, further corroborating the efficacy of combination therapy.

REFERENCE COUNT:

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 25 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:96560 HCAPLUS

DOCUMENT NUMBER:

139:207206

TITLE:

Changes in gene expression profile induced by the

anticancer agent Aplidine in Molt-4 leukemic

cell lines

AUTHOR (S):

Marchini, S.; Chiorino, G.; Faircloth, G. T.

; D'Incalci, M.

CORPORATE SOURCE:

Department of Oncology, Istituto di Ricerche

Farmacologiche "Mario Negri", Milan, Italy

SOURCE:

Journal of Biological Regulators and Homeostatic

Agents (2002), 16(3), 241-248 CODEN: JBRAER; ISSN: 0393-974X

PUBLISHER:

Wichtig Editore

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Microarray technique was employed to study differences in gene expression profile induced by Aplidine treatment in the Molt-4 human leukemic T cell line. Aplidine is a novel marine compound purified from caribbean tunicate (sea squirt) Aplidium albicans. Despite promising antitumor activity, few data are available on its mechanism of action. Exponentially growing cells were treated with Aplidine concns. close to its IC50 for 1 h and RNA samples collected after 0.5, 1, 6 and 24 h of recovery in drug free medium. The 32P labeled cDNAs were hybridized against Atlas Human Cancer arrays onto which 588 cDNAs were spotted. Genes involved in different cellular pathways, (such as growth factors, signal transduction or transcription factors) were found modulated by the drug. Even if the data obtained in the present study cannot be conclusive, several hypothesis on Aplidine's mechanism of action are indicated that will be the subject of future studies.

REFERENCE COUNT:

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 26 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:35878 HCAPLUS

DOCUMENT NUMBER:

139:223836

TITLE:

Aplidine, a new anticancer agent of marine origin, inhibits vascular endothelial growth factor

(VEGF) secretion and blocks VEGF-VEGFR-1 (flt-1) autocrine loop in human leukemia cells MOLT-4

AUTHOR (S):

Broggini, M.; Marchini, S. V.; Galliera, E.; Borsotti, P.; Taraboletti, G.; Erba, E.; Sironi, M.; Jimeno, J.;

Faircloth, G. T.; Giavazzi, R.; D'Incalci, M.

CORPORATE SOURCE:

Laboratory of Molecular Pharmacology, Istituto di Ricerche Farmacologiche Mario Negri', Milan, Italy

SOURCE:

Leukemia (2003), 17(1), 52-59

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CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal

LANGUAGE:

English

## Andet 10_531533

The mechanism by which aplidine, a marine natural product in early clin. AB development as an anticancer agent, induces cell growth inhibition and apoptosis has been investigated in the human leukemia cell line MOLT-4. This cell line is characterized not only by the ability to secrete VEGF, but also for the presence on its surface of the VEGF receptor-1 (VEGFR-1). Previous studies from our laboratory concerned with evaluating early changes in gene expression induced by aplidine in MOLT-4 cells have shown that the drug decreases the expression of VEGFR-1 (Marchini et al., 2000). Here, we report the ability of aplidine to block the VEGF/VEGFR-1 loop. We found that aplidine blocked VEGF secretion that was temporally followed by a decrease in both VEGF and VEGFR-1 production Aplidine did not directly affect either VEGF transcription or stabilization of its mRNA. Transfection of MOLT-4 cells with an antisense VEGF cDNA construct, resulted in inhibition of colony formations. One clone, transfected with sense VEGF cDNA, secreting 8-10 times more VEGF than parental cells, was less sensitive to aplidine-induced cytotoxicity and apoptosis than control cells. Moreover, addition of VEGF in the medium decreased the activity of aplidine in MOLT-4 cells. These data demonstrate that aplidine inhibits the growth and induces apoptosis in MOLT-4 cells through the inhibition of VEGF secretion which blocks the VEGF/VEGFR-1 autocrine loop necessary for the growth of these cells.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 27 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:974072 HCAPLUS

DOCUMENT NUMBER: 139:127523

TITLE: Effectiveness of ecteinascidin-743 against

drug-sensitive and -resistant bone tumor

cells

AUTHOR(S): Scotlandi, Katia; Perdichizzi, Stefania; Manara, Maria

Cristina; Serra, Massimo; Benini, Stefania; Cerisano,

Vanessa; Strammiello, Rosaria; Mercuri, Mario; Reverter-Branchat, Gemma; Faircloth, Glynn;

D'Incalci, Maurizio; Picci, Piero

CORPORATE SOURCE: Laboratorio di Ricerca Oncologica, Istituti Ortopedici

Rizzoli, Bologna, 40136, Italy

SOURCE: Clinical Cancer Research (2002), 8(12), 3893-3903

CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

The identification of new drugs is strongly needed for bone tumors AΒ Ecteinascidin-743 (ET-743), a highly promising antitumor agent isolated from the marine tunicate Ecteinascidia turbinata, is currently under Phase II clin. investigation in Europe and the United States for treatment of soft tissue sarcoma. In this study, we analyzed the preclin. effectiveness of this drug in osteosarcoma and Ewing's sarcoma. The effects of ET-743 were evaluated against a panel of human osteosarcoma and Ewing's sarcoma cell lines characterized by different drug responsiveness and compared with the effects of standard anticancer agents. In addition, combination treatments with ET-743 and the other standard chemotherapy agents for sarcoma were analyzed to highlight the best drug-to-drug interaction. A potent activity of ET-743 was clearly observed against both drug-sensitive and drug-resistant (multidrug-resistant, methotrexate- and cisplatin-resistant) bone tumor cells at concns. that are easily achievable in patients (pM to nM range). Ewing's sarcoma cells appeared to be particularly sensitive to the effects of this drug. The anal. of the effects of ET-743 on cell cycle, apoptosis, and differentiation indicated that both osteosarcoma and Sudet

Ewing's sarcoma cells had a slower progression through the different phases of the cell cycle after treatment with ET-743. However, the drug was able to induce a massive apoptosis in Ewing's sarcoma but not in osteosarcoma cells. In the latter neoplasm, ET-743 showed a differential effect, as indicated by the significant increase in the expression and activity of alkaline phosphatase, a marker of osteoblastic differentiation. Concurrent exposure of cells to ET-743 and other chemotherapeutic agents resulted in greater than additive interactions when doxorubicin and cisplatin were used, whereas subadditive effects were observed with methotrexate, vincristine, and actinomycin D. Overall, these results encourage the inclusion of this drug in the treatment of patients with bone tumors, although a careful design of new regimens is

required to identify the best therapeutic conditions.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 28 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:526235 HCAPLUS

DOCUMENT NUMBER:

138:100185

TITLE: AUTHOR (S): Unique features of the mode of action of ET-743 D'Incalci, Maurizio; Erba, Eugenio; Damia, Giovanna; Galliera, Emanuela; Carrassa, Laura; Marchini, Sergio;

Mantovani, Roberto; Tognon, Gianluca; Fruscio, Robert;

Jimeno, Jose; Faircloth, Glynn T.

CORPORATE SOURCE:

Department of Oncology, Istituto di Ricerche

Farmacologiche "Mario Negri,", Milan, 20157, Italy

SOURCE:

Oncologist (2002), 7(3), 210-216 CODEN: OCOLF6; ISSN: 1083-7159

PUBLISHER: AlphaMed Press

DOCUMENT TYPE:

Journal; General Review

LANGUAGE: English

A review of the current knowledge of the primary mode of action of a natural product, ecteinascidin 743 (ET-743), derived from the marine tunicate Ecteinascidia turbinata. ET-743 was initially selected for preclin. development because of its potent antitumor activity observed against several human solid tumor types. In vitro, the drug is cytotoxic in the nanomolar range, and in the case of some very sensitive cell lines, in the picomolar range. The large potency differences observed among several solid tumor types indicate that this compound possesses some tumor selectivity, but the mol. basis of these differential effects remains to be elucidated. The the mechanism of action of ET-743 is evaluated in this context. The available information on ET-743 binding to DNA and its effects on transcriptional regulation point to a unique behavior of this drug, as it independently affects specific gene transcription in a promoter-dependent way. addition, ET-743 shows a peculiar pattern of selectivity in cells with different defects in their DNA-repair pathways. These results highlight a unique property of ET-743, possibly explaining why it possesses antitumor activity against tumors that are refractory to standard anticancer drugs, all of which certainly act by mechanisms

that are different from that of ET-743.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 29 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:486038 HCAPLUS

DOCUMENT NUMBER: 138:66278

TITLE: Cell cycle phase perturbations and apoptosis in tumour

cells induced by aplidine

Erba, E.; Bassano, L.; Di Liberti, G.; Muradore, I.; AUTHOR (S):

#### Audet 10_531533

Chiorino, G.; Ubezio, P.; Vignati, S.; Codegoni, A.;

Desiderio, M. A.; Faircloth, G.; Jimeno, J.;

D'Incalci, M.

Cancer Pharmacology Laboratory, Department of CORPORATE SOURCE:

Oncology, Instituto di Richerche Farmacologiche Mario

Negri, Milan, 20157, Italy

British Journal of Cancer (2002), 86(9), 1510-1517 SOURCE:

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER:

Nature Publishing Group

Journal

DOCUMENT TYPE: English LANGUAGE:

Aplidine, dehydrodidemnin B, is a marine depsipeptide isolated from the Mediterranean tunicate Aplidium olbicans currently in phase II clin. trial. In human Molt-4 leukemia cells aplidine was found to be cytotoxic at nanomolar concns. and to induce both a G1 arrest and a G2 blockade. The drug-induced cell cycle perturbations and subsequent cell death do not appear to be related to macromol. synthesis (protein, RNA, DNA) since the effects occur at concns. (e.g. 10 nM) in which macromol. synthesis was not markedly affected. Ten nM Aplidine for 1 h inhibited Orn decarboxylase activity, with a subsequently strong decrease in putrescine levels. This finding has questionable relevance since addition of putrescine did not significantly reduce the cell cycle perturbations or the cytotoxicity of aplidine. The cell cycle perturbations caused by aplidine were also not due to an effect on the cyclin-dependent kinases. Although the mechanism of action of aplidine is still unclear, the cell cycle phase perturbations and the rapid induction of apoptosis in Molt-4 cells appear to be due to a mechanism different from that of known anticancer drugs.

REFERENCE COUNT:

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS 25 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 30 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:476181 HCAPLUS

DOCUMENT NUMBER:

138:180273

TITLE:

In vitro toxicity of ET-743 and Aplidine, two

marine-derived antineoplastics, on human

bone marrow hematopoietic progenitors comparison with

the clinical results

AUTHOR (S):

Albella, B.; Faircloth, G.; Lopez-Lazaro,

L.; Guzman, C.; Jimeno, J.; Bueren, J. A.

CORPORATE SOURCE:

Department of Molecular and Cellular Biology, CIEMAT,

Madrid, 28040, Spain

SOURCE:

European Journal of Cancer (2002), 38(10), 1395-1404

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE: English

Ecteinascidine-743 (ET-743) and Aplidine are 2 marine-derived antineoplastics currently in phase II development. With the aim of evaluating whether in vitro hematopoietic studies can predict the toxicity of these 2 drugs in patients, human bone marrow (BM) samples were incubated with these drugs under conditions which mimicked the administration exposures used in the clinics. As it was observed in different cancer cell lines, ET-743 was more toxic on an equimolar basis in human hematopoietic progenitors (inhibitory concentration reducing the viability to 50% after 24-h exposures; IC5024h: 10-50 nM) compared with doxorubicin (IC5024h values: 280-460 nM), used as a control anticancer drug. In contrast to the high hematotoxic effects observed for ET-743, similar IC values were obtained for Aplidine (IC5024h: 150-530 nM) compared with doxorubicin. For both ET-743 and Aplidine, the megakaryocytic progenitor was the most sensitive, compared with the other

5.3 -

hematopoietic progenitors (IC50 values were 3- to 5-fold lower in the CFU-Megs compared with the CFU-GMs). The observation that the Cmax observed in patients treated with the Aplidine maximum tolerated dose (MTD) (7.1 nM) was 21-75-fold lower than the IC5024h value observed for the different hematopoietic progenitors is highly consistent with the lack of hematotoxicity observed in patients treated with this drug. In the case of ET-743, differences between the Cmax value corresponding to the MTD (2.6 nM) and the in vitro IC50 values corresponding to the different progenitors were much lower (4-19-fold), also consistent with the hematotoxicity that was observed in patients treated at recommended doses (RDs) and MTDs. Although CFU-Megs were more sensitive than CFU-GM progenitors to ET-743 in vitro, clin. data showed that neutropenic events were more frequent than thrombocytopenic episodes. Aiming to further improve the predictive value of in vitro IC values corresponding to the different hematopoietic progenitors, addnl. refinement parameters derived from pharmacokinetic and animal studies are proposed.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 31 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:817226 HCAPLUS

DOCUMENT NUMBER: 135:362533

TITLE: Immunosuppressive sesbanimide compositions

INVENTOR(S): Faircloth, Glynn T.; Millan, Francisco

Romero; Fernandez, Librada Maria Canedo; Sarabia,

Cristina Accbal

PATENT ASSIGNEE(S): Pharma Mar, S.A., Spain

SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont. of U.S. Ser. No.

53,485, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001039041	A1	20011108	US 2001-756244	20010108
PRIORITY APPLN. INFO.:			US 1995-479695	B1 19950607
			US 1998-53485	B1 19980401

AB The active component of the pharmaceutical composition of the present invention is a compound which has been isolated from the controlled aerobic fermentation of

a marine microorganism, Agrobacterium sp. The pharmaceutical compns. of the present invention, useful for postsurgical graft tolerance, are thus directed to compns. comprising a pharmaceutical carrier, diluent or excipient, and an effective amount of sesbanimide, which is an alkaloid that has been previously been isolated from seeds and reported to be useful as an antitumor drug. Prior to the present invention however, this compound had not been isolated from any fermentation broth nor had it been

compound had not been isolated from any fermentation broth nor had it been determined

to have immunomodulatory activity. The crude residue of fermented Agrobacterium species was dissolved in H2O-MeOH (1:1). The water/alc. fraction was extracted twice with CH2Cl2 and twice with EtOAc. The organic solvent-soluble components were concentrated yielding active organic exts. The organic

extract was chromatographed on silica gel by an MPLC system using a mixture of hexane/EtOAc as the eluting solvent. The immunosuppressive and antitumor activities were detected in some of the fractions.

Audet -10 531533

L20 ANSWER 32 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:750175 HCAPLUS

DOCUMENT NUMBER: 136:395455

Sensitivity of soft tissue sarcoma cell lines to TITLE:

> chemotherapeutic agents: identification of ecteinascidin-743 as a potent cytotoxic agent Li, Wei Wei; Takahashi, Naoto; Jhanwar, Suresh;

AUTHOR (S):

Cordon-Cardo, Carlos; Elisseyeff, Yaroslav; Jimeno,

Jose; Faircloth, Glynn; Bertino, Joseph R.

Laboratories of Molecular Pharmacology, Memorial CORPORATE SOURCE:

Sloan-Kettering Cancer Center, New York, NY, 10021,

Clinical Cancer Research (2001), 7(9), 2908-2911 SOURCE:

CODEN: CCREF4; ISSN: 1078-0432

American Association for Cancer Research PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

The cytotoxic effects of ecteinascidin-743(ET-743), a novel marine natural AB product, were evaluated and compared with that of clin. used anticancer agents methotrexate, doxorubicin, etoposide, and paclitaxel in eight human soft tissue sarcoma (STS) cell lines. HT-1080, a fibrosarcoma cell line, and HS-42, a malignant mesodermal cell line, were the most sensitive of the cell lines to methotrexate, doxorubicin, etoposide, and paclitaxel. Other cell lines (IC50s) varied considerably and were more resistant to these agents. ET-743 was more potent than any of these agents, with IC50s in the PM range in all of the cell lines. Cytotoxicity of ET-743 was dose- and time-related (4-72 h exposure). Cytotoxic concns. of ET-743 produced a S/G2 block in all of the cell lines tested. Three colon adenocarcinoma cell lines, HCT-8, HT-29, and HCT-116, and one breast cancer cell line, MCF-7, were 1-2 logs less sensitive to ET-743 than the STS cell lines. Cell lines were also characterized as to expression of oncogenes and tumor suppressor genes to attempt to correlate sensitivity of these cell lines to ET-743 and other chemotherapeutic agents. All of the cell lines except M8805, a malignant fibrous histiocytoma cell line, had mutations in p53 and/or overexpressed the MDM2 protein. Only HS-18, a liposarcoma cell line, lacked expression of the retinoblastoma protein. None of the cell lines had detectable expression of P-glycoprotein as measured by immunohistochem. ET-743 is an extremely potent cytotoxic agent against human STS cell lines and is being evaluated as an antitumor

REFERENCE COUNT: THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS 21 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 33 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

2001:688131 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:48209

agent in this disease.

In vitro hematotoxicity of Aplidine on human bone TITLE:

marrow and cord blood progenitor cells

Gomez, S. G.; Faircloth, G.; Lopez-Lazaro, AUTHOR (S): L.; Jimeno, J.; Bueren, J. A.; Albella, B.

Department of Molecular and Cellular Biology, CIEMAT,

Madrid, 28040, Spain

Toxicology in Vitro (2001), 15(4/5), 347-350 SOURCE:

CODEN: TIVIEQ; ISSN: 0887-2333

Elsevier Science Ltd. PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

Aplidine is a cyclic depsipeptide that was isolated from a Mediterranean marine tunicate, Aplidium albicans. In exptl. animals, Aplidine mediated 1:16 *

an in vivo inhibitory effect in a number of tumor cell types. In humans, Aplidine is currently used in phase I clin. trials. Aiming to predict the hematotoxicity of Aplidine in humans, samples from human bone marrow (BM) and cord blood (CB) were exposed in vitro to increasing concns. of the drug and then assayed for the clonogenic ability of myeloid (CFU-GM), erythroid (BFU-E), megakaryocytic (CFU-Meg) and pluripotent (CFU-Mix) hematopoietic progenitors. We investigated whether predictions of the hematotoxicity of Aplidine based on bone marrow (BM) cultures were reproduced when a more readily available source of human hematopoietic cells, cord blood cells, was used in expts. involving 24-h exposures. Although hematopoietic progenitors derived from bone marrow were generally more sensitive than those derived from cord blood, differences on the IC50, IC70 and IC90 varied within a relatively small range of 1.6-6.2-fold. Moreover, data obtained from cord blood cultures confirmed the observation made in bone marrow assays indicating that the myeloid (CFU-GM) and the erythroid (BFU-E) progenitors were the least sensitive to Aplidine. Regardless of the origin of the hematopoietic progenitors (bone marrow or cord blood) the toxicity of Aplidine in human hematopoietic progenitors (IC50: 150-2250 nm) was lower than that observed in previous studies with tumoral cell lines.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 34 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:380410 HCAPLUS

DOCUMENT NUMBER: 134:361352

TITLE: Aplidine for treatment of cancers

INVENTOR(S): Faircloth, Glynn Thomas; Twelves, Chris;

Paz-Ares, Luis

PATENT ASSIGNEE(S): Pharma Mar S.A., Spain SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KINI											DATE								
WO 2001035974 WO 2001035974				A2	2 20010525														
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BR	2000	0158	11		Α		2002	0806	BR 2000-15811							20001115			
ΕP	1229	922			A2		2002	0814		EP 20	000-9	9761	37		20001115				
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR								
JP	2003	5140	25		Т2		2003	0415		JP 20	001-!		20001115						
	5188																		
	7804																		
RU	2261	104			C2		2005	0927	]	RU 20	002-3	1158	64		2	0001	115		
CA	2424	823			AA		2002	0418	(	CA 2	001-2	2424	823		2	0011	012		

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WO 2001-GB4555
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     WO 2002030441
                         A3
                                20020801
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             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                                           AU 2001-94024
     AU 2001094024
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                                                                   20011012
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                                           EP 2001-974510
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PRIORITY APPLN. INFO.:
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                                            GB 2000-15496
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                                            GB 2000-25044
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                                            WO 2000-GB4349
                                            GB 2001-7373
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                                            WO 2001-GB4555
                                                                W 20011012
     Aplidine demonstrates considerable promise in phase I clin. trials for
AB
     treatment of tumors, and various dosing regimes are given.
     Tumor reduction has been observed in several tumor types
     including renal carcinoma, colorectal cancer, lung carcinoid,
     medullary thyroid carcinomas and melanoma. It has also been found that
     aplidine has a role in inhibiting angiogenesis, complementing the
     antitumor activity.
L20 ANSWER 35 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
                         2001:363160 HCAPLUS
ACCESSION NUMBER:
                         136:130300
DOCUMENT NUMBER:
TITLE:
                         Unique pattern of ET-743 activity in different
                         cellular systems with defined deficiencies in
                         DNA-repair pathways
                         Damia, Giovanna; Silvestri, Simonetta; Carrassa,
AUTHOR (S):
                         Laura; Filiberti, Laura; Faircloth, Glynn T.
                         ; Liberi, Giordano; Foiani, Marco; D'Incalci, Maurizio
                         Department of Oncology, Instituto di Ricerche
CORPORATE SOURCE:
                         Farmacologiche "Mario Negri", Milan, 20157, Italy
SOURCE:
                         International Journal of Cancer (2001), 92(4), 583-588
                         CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER:
                         Wiley-Liss, Inc.
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
    The cytotoxic activity of ecteinascidin 743 (ET-743), a natural product
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53752

derived from the marine tunicate Ecteinascidia turbinata that exhibits potent anti-tumor activity in pre-clin. systems and promising activity in phase I and II clin. trials, was investigated in a number of cell systems with well-defined deficiencies in DNA-repair mechanisms. ET-743 binds to N2 of guanine in the minor groove, but its activity does not appear to be related to DNA-topoisomerase I poisoning as the drug is equally active in wild-type yeast and in yeast with a deletion in the DNA-topoisomerase I gene. Defects in the mismatch repair pathway, usually associated with increased resistance to methylating agents and cisplatin, did not affect the cytotoxic activity of ET-743. However, ET-743 did show decreased activity (from 2- to 8-fold) in nucleotide excision repair (NER) -deficient cell lines compared to NER-proficient cell lines, from either hamsters or humans. Restoration of NER function sensitized cells to ET-743 treatment. The DNA double-strand-break repair pathway was also investigated using human glioblastoma cell lines MO59K and MO59J, resp., proficient and deficient in DNA-dependent protein kinase (DNA-PK), ET-743 was more effective in cells lacking DNA-PK; moreover, pre-treatment of HCT-116 colon carcinoma cells with wortmannin, a potent inhibitor of DNA-PK, sensitized cells to ET-743. An increase in ET-743 sensitivity was also observed in ataxia telangiectasia-mutated cells. The data strongly suggest that ET-743 has a unique mechanism of interaction with DNA. 30

REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 36 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:73747 HCAPLUS

DOCUMENT NUMBER:

135:116666

TITLE:

Ecteinascidin-743 (ET-743), a natural marine compound,

with a unique mechanism of action

AUTHOR (S):

Erba, E.; Bergamaschi, D.; Bassano, L.; Damia, G.;

Ronzoni, S.; Faircloth, G. T.; D'Incalci, M.

CORPORATE SOURCE:

Istituto di Ricerche Farmacologiche 'Mario Negri',

Department of Oncology, Milan, 20157, Italy

SOURCE:

European Journal of Cancer (2001), 37(1), 97-105

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The mode of action of Ecteinascidin-743 (ET-743), a marine tetrahydroisoquinoline alkaloid isolated from Ecteinascidia turbinata, which has shown very potent antitumor activity in preclin. systems and encouraging results in Phase I clin. trials was investigated at a cellular level. Both SW620 and LoVo human intestinal carcinoma cell lines exposed for 1 h to ET-743 progress through S phase more slowly than control cells and then accumulate in the G2M phase. The sensitivity to ET-743 of G1 synchronized cells was much higher than that of cells synchronized in S phase and even higher than that of cells synchronized in G2M. ET-743 concns. up to four times higher than the IC50 value caused no detectable DNA breaks or DNA-protein cross-links as assessed by alkaline elution techniques. ET-743 induced a significant increase in p53 levels in cell lines expressing wild-type (wt) (p53). However, the p53 status does not appear to be related to the ET-743 cytotoxic activity as demonstrated by comparing the drug sensitivity in p53 (-/-) or (+/+) mouse embryo fibroblasts and in A2780 ovarian cancer cells or the A2780/CX3 sub-line transfected with a dominant-neg. mutant TP53. The cytotoxic potency of ET-743 was comparatively evaluated in CHO cell lines proficient or deficient in nucleotide excision repair (NER), and it was found that ET-743 was approx. 7-8 times less active in ERCC3/XPB and ERCC1-deficient cells than control cells. The findings that G1 phase cells are hypersensitive and that NER-deficient cells are resistant to

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ET-743 indicate that the mode of action of ET-743 is unique and different from that of other DNA-interacting drugs.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 37 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:412188 HCAPLUS

DOCUMENT NUMBER: 133:129636

TITLE: Interference of transcriptional activation by the

antineoplastic drug ecteinascidin-743

AUTHOR(S): Minuzzo, Mario; Marchini, Sergio; Broggini, Massimo;

Faircloth, Glynn; D'Incalci, Maurizio;

Mantovani, Roberto

CORPORATE SOURCE: Dipartimento di Genetica e di Biologia dei

Microrganismi, Universita degli Studi di Milano,

Milan, 20133, Italy

SOURCE: Proceedings of the National Academy of Sciences of the

United States of America (2000), 97(12), 6780-6784

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal LANGUAGE: English

AB Ecteinascidin-743 (ET-743) is a tetrahydroisoquinoline alkaloid isolated from the tunicate Ecteinascidia turbinata currently under phase II clin. trials for its potent anticancer activity. ET-743 binds DNA in the minor groove and forms covalent adducts with some sequence specificity. It selectively inhibits in vitro binding of the CCAAT box factor NF-Y. In this study, the authors assayed ET-743 function in vivo on the HSP70 promoter. On heat induction, the drug blocks transcription rapidly at pharmacol. concns. and in a CCAAT-dependent manner, whereas the activity of the CCAAT-less simian virus 40 promoter is not affected. The effect is exerted at the mRNA level. The distamycin-like alkylating tallimustine is inactive in these assays. Binding of NF-Y and of the heat-shock factor is normal in ET-743-treated cells. Run-on anal. of several endogenous genes further proves that the drug has rapid, profound, and selective neg. effects on transcription. Thus, this marine-derived

compound is a promoter-specific, transcription-interfering agent.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 38 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:412185 HCAPLUS

DOCUMENT NUMBER: 133:129635

TITLE: Ecteinascidin 743, a transcription-targeted chemotherapeutic that inhibits MDR1 activation

AUTHOR(S): Jin, Shengkan; Gorfajn, Barbara; Faircloth,

Glynn; Scotto, Kathleen W.

CORPORATE SOURCE: Molecular Pharmacology and Therapeutics Program,

Memorial Sloan-Kettering Cancer Center and the Weill

Graduate School of Medical Sciences of Cornell

University, New York, NY, 10021, USA

SOURCE: Proceedings of the National Academy of Sciences of the

United States of America (2000), 97(12), 6775-6779

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal LANGUAGE: English

AB Ecteinascidin 743 (ET-743), a highly promising marine-based antitumor agent presently in phase II clin. trials, has been shown to interfere with the binding of minor-groove-interacting transcription " MAT

factors, particularly NF-Y, with their cognate promoter elements in vitro. The authors have shown that NF-Y is a central mediator of activation of transcription of the human P glycoprotein gene (MDR1) by a variety of inducers and that NF-Y functions by recruiting the histone acetyltransferase PCAF to the MDR1 promoter. In the present study, the authors tested whether ET-743 could block activation of the MDR1 promoter by agents that mediate their effect through the NF-Y/PCAF complex. The authors report that physiol. relevant concns. of ET-743 abrogate transcriptional activation of both the endogenous MDR1 gene and MDR1 reporter constructs by the histone deacetylase inhibitors as well as by UV light, with minimal effect on constitutive MDR1 transcription. Notably, this inhibition does not alter the promoter-associated histone hyperacetylation induced by histone deacetylase inhibitors, suggesting an in vivo mol. target downstream of NF-Y/PCAF binding. ET-743 is therefore the prototype for a distinct class of transcription-targeted chemotherapeutic agents and may be an efficacious adjuvant to the treatment of multidrug-resistant tumors.

REFERENCE COUNT:

21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

531- .

L20 ANSWER 39 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:384338 HCAPLUS

DOCUMENT NUMBER: 133:217447

TITLE: Isolation and characterization of an IGROV-1 human

ovarian cancer cell line made resistant to

Ecteinascidin-743 (ET-743)

AUTHOR(S): Erba, E.; Bergamaschi, D.; Bassano, L.; Ronzoni, S.;

Di Liberti, G.; Muradore, I.; Vignati, S.; Faircloth, G.; Jimeno, J.; D'Incalci, M.

CORPORATE SOURCE: Cancer Pharmacology Laboratory, Department of

Oncology, Istituto di Ricerche Farmacologiche "Mario

Negri", Milan, 62-20157, Italy

SOURCE: British Journal of Cancer (2000), 82(10), 1732-1739

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER: Harcourt Publishers Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

By exposing Igrov-1 human ovarian cancer cells to increasing concns. of Ecteinascidin-743 (ET-743), either for a short or prolonged time, the authors obtained sublines resistant to ET-743 which overexpress Pgp. The most resistant clone (Igrov-1/25 ET) was evaluated for biol. and pharmacol. characterizations. The increased Pgp levels of Igrov-1/25 ET were not due to amplification of the mdr-1 gene but to increased mRNA levels. No increase in other multidrug resistance-related proteins such as MRP or LRP was observed in Igrov-1/25 ET. The IC50 values of ET-743 against Igrov-1/25 ET was approx. 50 times higher than the parental cell line. Resistance was not reversed while maintaining the cell line in drug-free medium for at least 24 mo. Igrov-1/25 ET was cross-resistant to doxorubicin and VP 16 while it was equally sensitive to L-PAM, MNNG, CPT, and only marginally less sensitive to Cis-DDP and oxaliplatin compared to the parental cell line. Igrov-1/25 ET exposed to doxorubicin retained this drug much less, mainly because of a more efficient drug efflux. The cyclosporine analog SDZ PSC-833 reversed the resistance of Igrov-1/25 ET to ET-743, without any enhancement of the drug activity against the parental Igrov-1 cell line. Igrov-1/25 ET exhibits typical features of cell lines overexpressing the mdr-1 gene and can be a potentially useful tool in selecting ET-743 non-cross-resistant analogs as well as to investigate methods to counteract resistance to this drug.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

#### Audet 10 531533 Auget

L20 ANSWER 40 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN 2000:221294 HCAPLUS ACCESSION NUMBER: 133:99203 DOCUMENT NUMBER: The marine compound spisulosine, an inhibitor of cell TITLE: proliferation, promotes the disassembly of actin stress fibers Cuadros, R.; Montejo de Garcini, E.; Wandosell, F.; AUTHOR (S): Faircloth, G.; Fernandez-Sousa, J. M.; Avila, Centro de Biologia Molecular 'Severo Ochoa' CORPORATE SOURCE: (CSIC-UAM), Universidad Autonoma de Madrid, Madrid, 28049, Spain Cancer Letters (Shannon, Ireland) (2000), 152(1), SOURCE: 23-29 CODEN: CALEDQ; ISSN: 0304-3835 Elsevier Science Ireland Ltd. PUBLISHER: DOCUMENT TYPE: Journal LANGUAGE: English Spisulosine is a novel antiproliferative (antitumoral) compound of marine origin. In this work the mol. target for this toxic agent has been analyzed. In the presence of spisulosine, cultured cells change their morphol., first acquiring a fusiform morphol., and later becoming rounded without focal adhesions. Anal. of the cytoskeleton of treated cells indicate the absence of actin stress fibers. THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 31 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L20 ANSWER 41 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1999:672566 HCAPLUS DOCUMENT NUMBER: 131:295576 Spisulosine compounds having antitumor TITLE: activity Rinehart, Kenneth Lloyd; Fregeau, Nancy Louise; INVENTOR (S): Warwick, Robert Arthur; Garcia Gravalos, Dolores; Avila, Jesus; Faircloth, Glynn Thomas The Board of Trustees of the University of Illinois, PATENT ASSIGNEE(S): USA; Ruffles, Graham Keith PCT Int. Appl., 73 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE _____ _ _ _ _ _____ _____ WO 1999-GB1091 WO 9952521 A1 19991021 19990409 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 1998-58456

CA 1999-2328126

AU 1999-34321

19980410

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19990409

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BR 1999-10120
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    TR 200002955
                                          TR 2000-200002955
                         T2
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                                                                 20001109
PRIORITY APPLN. INFO.:
                                          US 1998-58456
                                                             A 19980410
                                          US 1997-43326P
                                                             P 19970415
                                          US 1997-43599P
                                                              P 19970415
                                          WO 1999-GB1091
                                                              W 19990409
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Investigation of the activity of exts. of the clam Spisula polynyma has AB led to antitumor long-chain, straight-chain alkane or alkene compds. which have a 2-amino group and a 3-hydroxy group.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 42 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:625555 HCAPLUS

DOCUMENT NUMBER: 131:317437

TITLE: Effect of ecteinascidin-743 on the interaction between

DNA binding proteins and DNA

AUTHOR (S): Bonfanti, Marina; La Valle, Elisa; Faro, Jose-Maria

Fernandez Sousa; Faircloth, Glynn; Caretti,

Giuseppina; Mantovani, Roberto; D'Incalci, Maurizio Department of Oncology, Istituto di Ricerche

Farmacologiche Mario Negri, Milan, 20157, Italy

Anti-Cancer Drug Design (1999), 14(3), 179-186

SOURCE: CODEN: ACDDEA; ISSN: 0266-9536

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

CORPORATE SOURCE:

Ecteinascidin-743 (ET-743) is a tetrahydroisoquinoline alkaloid isolated from Ecteinascidia turbinata, a tunicate growing in mangrove roots in Caribbean. It has been shown to bind in the minor groove of DNA forming covalent adducts by reaction of the N2 of guanine with the carbinolamine moiety. We investigated ET-743 ability to inhibit the binding of different transcription factors to their consensus sequences by using gel shift assays. We have selected three types of factors: (i) oncogene products such as MYC, c-MYB and Maf; (ii) transcriptional activators regulated during the cell cycle as E2F and SRF; and (iii) general transcription factors such as TATA binding protein (TBP), Sp1 and NF-Y. We observed no inhibition of the binding of Spl, Maf, MYB and MYC. Inhibition of DNA binding was observed for TBP, E2F, SRF at ET-743 concns. ranging from 50 to 300 µM. The inhibition of binding of NF-Y occurs at even lower concns. (i.e. 10-30  $\mu M$ ) when the recombinant subunits of NF-Y are preincubated with the drug, indicating that the inhibition of NF-Y binding does not require previous ET-743 DNA binding. Since NF-Y is a trimer containing two subunits with high resemblance to histones H2B and H2A, we have investigated the effect of ET-743 on nucleosome reconstitution. ET-743 caused a decrease of the nucleosomal band at 100 nM, with the complete disappearance of the band at 3-10 μM. These data suggest that the mode of action of this novel anticancer drug is related to its ability to modify the interaction between some DNA binding

Audet 10 531533 20 3

proteins and DNA.

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 31 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 43 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

1999:566537 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 131:208780

TITLE: Cytotoxicity and neurocytotoxicity of new marine

anticancer agents evaluated using in vitro

assays

Geldof, Albert A.; Mastbergen, Simon C.; Henrar, AUTHOR (S):

Roland E. C.; Faircloth, Glynn T.

Dep. Urology/Nuclear Med., Vrije Univ. Amsterdam, CORPORATE SOURCE:

Amsterdam, 1007 MB, Neth.

Cancer Chemotherapy and Pharmacology (1999), 44(4), SOURCE:

312-318

CODEN: CCPHDZ; ISSN: 0344-5704

Springer-Verlag PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

New classes of anticancer drugs, isolated from marine organisms, were shown to possess cytotoxic activity against multiple tumor types. Aplidine, didemnin B, and isohomohalichondrin B (IHB), among the

more promising antitumor candidates, were evaluated in the present study on a comparative basis in terms of their antiproliferative

activity and neurotoxic effects in vitro. Using a panel of different human prostatic cancer cell lines (DU 145, PC-3, and LNCaP-FGC)

the effects of aplidine, didemnin B, and IHB on tumor cell proliferation were tested in a colorimetric (XTT) assay and compared with the effects of vincristine, vinorelbine, and taxol. Under analogous in vitro conditions these drugs were also monitored for neurocytotoxic effects using a PC 12 cell line based model. Didemnin B and - especially aplidine were more effective in the inhibition of prostate cancer cell proliferation than vincristine, vinorelbine, or taxol at concentration levels between 5-50 pmol/mL. At these same concns., however, didemnin B and aplidine were also most potent in the in vitro neurotoxicity assays. IHB was found to exert even more potent antiproliferative activity (at

concentration levels between 0.05-0.1 pmol/mL). However, neurotoxic effects were

also found to be present at these levels. After drug withdrawal, the neurotoxic damage, inflicted by aplidine or IHB appeared to be more long lasting than after vincristine or vinorelbine exposure. These results point to high antiproliferative activity of aplidine and IHB in prostate cancer. At the same time, the data urge some caution in the clin. use of these agents because of potential neurotoxic side-effects. The use of a newly formulated aplidine may involve a more favorable therapeutic profile.

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 29 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 44 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

1999:432824 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 131:179198

Bioanalysis of aplidine, a new marine TITLE:

antitumoral depsipeptide, in plasma by

high-performance liquid chromatography after

derivatization with trans-4'-hydrazino-2-stilbazole

Sparidans, Rolf W.; Kettenes-Van Den Bosch, J. AUTHOR (S):

Jantien; Van Tellingen, Olaf; Nuyen, Bastiaan; Henrar,

Roland E. C.; Jimeno, Jose M.; Faircloth,

Glynn; Floriano, Pablo; Rinehart, Kenneth L.;

Beijnen, Jos H.

CORPORATE SOURCE: Faculty of Pharmacy, Department of Pharmaceutical

Analysis, Utrecht University, Utrecht, 3584 CA, Neth. Journal of Chromatography, B: Biomedical Sciences and

Applications (1999), 729(1 + 2), 43-53

CODEN: JCBBEP; ISSN: 0378-4347

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

A sensitive bio-anal. assay in plasma of the depsipeptide aplidine is reported, based on reversed-phase liquid chromatog, and fluorescence detection of the trans-4'-hydrazino-2-stilbazole (4'H2S) derivative of the analyte. At ambient temperature, two conformations of the depsipeptide are observed in solution due to cis-trans isomerism at the proline-pyruvoyl peptide bond. Aplidine is isolated from the matrix by solid-phase extraction on an octadecyl modified silica stationary phase. After evaporation of the acetone eluate, a derivatization with 4'H2S is performed in a water-acetonitrile mixture at pH 4. The reaction mixture is injected directly into the chromatograph and the analyte is quantified by fluorescence detection at 410 and 560 nm for excitation and emission, resp. The method has been validated in the 2-100 ng/mL-range, 2 ng/mL being the lower limit of quantification. Precision and accuracy both meet the current requirements for a bioanal. assay. The identity of the 4'H2S reaction products of aplidine have been confirmed by mass spectrometric anal. Finally, the method has been employed for a pilot pharmacokinetic study of aplidine in mice which demonstrated its usefulness for pharmacol. research.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 45 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:390172 HCAPLUS

DOCUMENT NUMBER: 131:179449

TITLE: Mode of action of thiocoraline, a natural marine

compound with anti-tumor activity

AUTHOR(S): Erba, E.; Bergamaschi, D.; Ronzoni, S.; Faretta, M.;

Taverna, S.; Bonfanti, M.; Catapano, C. V.;

Faircloth, G.; Jimeno, J.; D'Incalci, M.

CORPORATE SOURCE: Laboratory of Cancer Pharmacology, Department of

Oncology, Istituto di Ricerche Farmacologiche 'Mario

Negri', Milan, 20157, Italy

SOURCE: British Journal of Cancer (1999), 80(7), 971-980

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER: Churchill Livingstone

DOCUMENT TYPE: Journal LANGUAGE: English

Thiocoraline, a new anticancer agent derived from the marine actinomycete Micromonospora marina, was found to induce profound perturbations of the cell cycle. On both LoVo and SW620 human colon cancer cell lines, thiocoraline caused an arrest in the G1 phase of the cell cycle and a decrease in the rate of S phase progression towards G2/M phases, as assessed by using bromodeoxyuridine/DNA biparametric flow cytometric anal. Thiocoraline does not inhibit DNA-topoisomerase II enzymes in vitro, nor does it induce DNA breakage in cells exposed to effective drug concns. The cell cycle effects observed after exposure to thiocoraline appear related to the inhibition of DNA replication. By using a primer extension assay it was found that thiocoraline inhibited DNA elongation by DNA polymerase  $\alpha$  at concns. that inhibited cell cycle progression and clonogenicity. These studies indicate that the new anticancer drug thiocoraline probably acts

#### Audet 10 531533 ....er

by inhibiting DNA polymerase  $\alpha$  activity.

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 14

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 46 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:300619 HCAPLUS

DOCUMENT NUMBER:

131:82490

TITLE:

Bioanalysis of thiocoraline, a new marine antitumoral depsipeptide, in plasma by high-performance liquid chromatography and

fluorescence detection

AUTHOR (S):

SOURCE:

Sparidans, Rolf W.; Henrar, Roland E. C.; Jimeno, Jose

M.; Faircloth, Glynn; Floriano, Pablo;

Beijnen, Jos H.

CORPORATE SOURCE:

Faculty of Pharmacy, Department of Pharmaceutical Analysis, Utrecht University, Utrecht, 3584 CA, Neth. Journal of Chromatography, B: Biomedical Sciences and Applications (1999), 726(1 + 2), 255-260 CODEN: JCBBEP; ISSN: 0378-4347

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal English

LANGUAGE:

A sensitive bioanal. assay for thicoraline, an investigational marine anticancer agent, in plasma, based on reversed-phase liquid chromatog, and fluorescence detection, is reported. The proteins in the sample are precipitated by the addition of acetonitrile. After

centrifugation, the

supernatant is injected directly into the chromatograph. The analyte is quantified by fluorescence detection with excitation and emission at 365 and 540 nm, resp. The method has been validated in the 1-100 ng/mL range, 1 ng/mL being the lower limit of quantification. Precision and accuracy both meet the current requirements for a bio-anal. assay and are <15% at 1 ng/mL and ≤5% in the 5-100 ng/mL range. Plasma samples can be stored for at least 4 mo at -800C. Finally, the usefulness of this method for pharmacol. research was shown in a pilot study of the pharmacokinetics of thiocoraline in rats.

REFERENCE COUNT:

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS 14 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 47 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:69332 HCAPLUS

DOCUMENT NUMBER:

130:291176

TITLE:

Cell cycle perturbations and apoptosis induced by isohomohalichondrin B (IHB), a natural marine compound

AUTHOR (S):

Bergamaschi, D.; Ronzoni, S.; Taverna, S.; Faretta, M.; De Feudis, P.; Faircloth, G.; Jimeno,

J.; Erba, E.; D'Incalci, M.

CORPORATE SOURCE:

Cancer Pharmacology Laboratory, Department of

Oncology, Istituto di Ricerche Farmacologiche "Mario

Negri", Milan, 20157, Italy

SOURCE:

British Journal of Cancer (1999), 79(2), 267-277

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER:

Churchill Livingstone

DOCUMENT TYPE:

Journal

LANGUAGE: English

Isohomohalichondrin B (IHB), a novel marine compound with anti-AΒ tumoral activity, extracted from the Lissodendorix sponge, inhibits GTP binding to tubulin, preventing microtubule assembly. Cell cycle perturbations and apoptosis induced by IHB were investigated on selected human cancer cell lines by using flow cytometric and biochem.

## Audet 10 531533

techniques. Monoparameter flow cytometric anal. showed that 1 h IHB exposure caused a delayed progression through S-phase, a dramatic block in G2M phase of the cell cycle and the appearance of tetraploid cell population in LoVo, LoVo/DX, MOLT-4 and K562 cells. At 24 h after IHB exposure, the majority of cells blocked in G2M were in prophase as assessed by morphol. anal. and by the fact that they expressed high levels of cyclin A/cdc2 and cyclin B1/cdc2. At 48 h, all cells were tetraploid as assessed by biparameter cyclin A/DNA and cyclin B1/DNA content anal. Apoptotic death was detected in both leukemic MOLT-4 and K562 cells, which express wild-type and mutated p53 resp., when the cells were blocked in mitotic prophase. In conclusion, IHB is a novel potent anti-tumor drug that causes delayed S-phase progression, mitotic block, tetraploidy and apoptosis in cancer cell lines.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 48 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

1998:765472 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 129:325669

Quantitative determination of Eteinascidin 743 in TITLE: human plasma by miniaturized high-performance liquid chromatography coupled with electrospray ionization

tandem mass spectrometry

AUTHOR (S): Rosing, H.; Hillebrand, M. J. X.; Jimeno, J. M.;

Gomez, A.; Floriano, P.; Faircloth, G.;

Henrar, R. E. C.; Vermorken, J. B.; Cvitkovic, E.;

Bult, A.; Beijnen, J. H.

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE: Journal of Mass Spectrometry (1998), 33(11), 1134-1140

CODEN: JMSPFJ; ISSN: 1076-5174

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

A method was developed for the determination of Ecteinascidin 743 (ET-743) AB

using

miniaturized liquid chromatog. (LC) coupled to an electrospray ionization sample inlet (TurbolonSpray) and 2 quadrupole mass analyzers (LC/ESI-MS/MS). Solid-phase extraction was used as a sample pretreatment procedure. Ecteinascidin 743 is a very potent anticancer compound and is administered in  $\mu g$  m-2 dosages, which demands special requirements in terms of sensitivity for the anal. method supporting clin. pharmacokinetic studies. Using conventional LC/UV, a lower limit of quantitation (LLQ) of 1 ng mL-1 plasma was reached using a 500  $\mu$ L sample volume, but LC/ESI-MS/MS permitted an LLQ of 10 pg mL-1. The latter method was accurate and precise, and provided a broad linear concentration

range

of 0.010-2.50 ng mL-1.

REFERENCE COUNT: THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS 10 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 49 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:646497 HCAPLUS

130:32755 DOCUMENT NUMBER:

TITLE: In vitro activity of aplidine, a new marine-derived

anti-cancer compound, on freshly explanted

clonogenic human tumor cells and

hematopoietic precursor cells

AUTHOR(S): Depenbrock, H.; Peter, R.; Faircloth, G. T.; Audet 10_531533

Manzanares, I.; Jimeno, J.; Hanauske, A. R.

CORPORATE SOURCE: Technische Universitat Munchen, Division of Hematology

and Oncology, Department of Medicine, Munich, 81675,

Germany

SOURCE: British Journal of Cancer (1998), 78(6), 739-744

CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER: Churchill Livingstone

DOCUMENT TYPE: Journal LANGUAGE: English

Aplidine is a new marine anti-cancer depsipeptide isolated from AB the Mediterranean tunicate Aplidium albicans. We have evaluated its antiproliferative action against a variety of freshly explanted human tumor specimens. Concentration ranges of 0.01-1.0 µM and 0.0001-1.0 μM were used in short- and long-term exposure schedules resp. After exposure for 1 h in 49 evaluable specimens, aplidine showed a clear concentration-dependent anti-tumor effect. At 0.05  $\mu\text{M},~85\%$  of the specimens were markedly inhibited. Continuous exposure for 21-28 days in 54 tumor specimens also led to a concentration-dependent activity relationship. Fifty per cent and 100% tumor inhibitions were achieved with  $0.001~\mu M$  and  $0.05~\mu M$  resp. A head to head evaluation assessing short vs continuous exposure was carried out, resulting in evidence of an activity-time of exposure relationship. Breast, melanoma and non-small-cell lung cancer appear to be sensitive to low concns. of aplidine. In addn,. the evaluation of the effects of aplidine on hematopoietic cells showed a concentration-dependent toxicity. However, under

continuous exposure, active concns. induced mild bone marrow toxicity, indicating that a therapeutic window at marginally myelotoxic concns. might exist.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 50 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:565299 HCAPLUS

DOCUMENT NUMBER: 129:270190

TITLE: Ecteinascidin-743, a new marine natural product with

potent antitumor activity on human ovarian

carcinoma xenografts

AUTHOR(S): Valoti, Giorgio; Nicoletti, M. Ines; Pellegrino,

Antonio; Jimeno, Jose; Hendriks, Hans; D'Incalci,

Maurizio; Faircloth, Glynn; Giavazzi,

Raffaella

CORPORATE SOURCE: Mario Negri Institute for Pharmacological Research,

Bergamo, Italy

SOURCE: Clinical Cancer Research (1998), 4(8), 1977-1983

CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

The antitumor activity of ecteinascidin (ET)-743, a novel marine natural product, was evaluated against a panel of human ovarian carcinoma xenografts characterized by different malignant behaviors and drug responsiveness in nude mice. These tumor models included three xenografts transplanted s.c. (HOC18, HOC22-S, and MNB-PTX-1) into nude mice, representing different levels of sensitivity to cisplatinum (DDP), which was used as reference drug for ovarian carcinoma, and two other xenografts (HOC22 and HOC8), which are highly malignant in the peritoneal cavity of nude mice, representing the growth pattern of this neoplasm. At the maximum tolerated dose of 0.2 mg/kg using an intermittent schedule of one i.v. injection every 4 days, ET-743 was

highly active against HOC22-S (sensitive to DDP), inducing long-lasting, complete regressions, and against HOC18 (marginally sensitive to DDP), inducing partial tumor regressions. Moreover, significant growth delay was observed in mice bearing late-stage HOC18 tumor (400-mg tumor weight; nonresponsive to DDP). ET-743, however, was not active against MNB-PTX-1, a tumor that is highly resistant to chemotherapy, including DDP. In the i.p. ovarian carcinoma xenograft model, ET-743 at the maximum tolerated dose induced complete tumor remissions in all mice bearing HOC22 tumor, with 25% histopathol. confirmed cures, and produced marginal tumor growth delay against HOC8. These results indicate that ET-743 is a potent drug against ovarian carcinoma xenografts, being equally as active or more

human ovarian carcinoma xenografts justify clin. assessment of this drug

with this tumor target. REFERENCE COUNT:

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS 22 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

331·

L20 ANSWER 51 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:467222 HCAPLUS

efficacious than DDP in the same tumor line. Our findings with

DOCUMENT NUMBER:

129:211157

TITLE:

. > e+

Analysis of Ecteinascidin 743, a new potent marine-derived anticancer drug, in human

plasma by high-performance liquid chromatography in

combination with solid-phase extraction

AUTHOR (S):

Rosing, H.; Hillebrand, M. J. X.; Jimeno, J. M.;

Gomez, A.; Floriano, P.; Faircloth, G.;

Cameron, L.; Henrar, R. E. C.; Vermorken, J. B.; Bult,

A.; Beijnen, J. H.

CORPORATE SOURCE:

Dept. of Pharmacy and Pharmacology, Slotervaart Hospital/Netherlands Cancer Institute, Louwesweg 6,

Amsterdam, 1066 EC, Neth.

SOURCE:

Journal of Chromatography, B: Biomedical Sciences and

Applications (1998), 710(1 + 2), 183-189

CODEN: JCBBEP; ISSN: 0378-4347

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal

LANGUAGE: English

A reversed-phase high-performance liquid chromatog. method has been developed and validated for the quantification of the novel anticancer drug Ecteinascidin 743 in human plasma. The sample pretreatment of the plasma samples involved a solid-phase extraction (SPE) on cyano columns. Propyl-p-hydroxybenzoate was added after the sample pretreatment to correct for variability in injection vols. The separation was performed on a Zorbax SB-C18 column (75+4.6 mm I.D., particle size 3.5 µm) with acetonitrile-25 mM phosphate buffer, pH 5.0 (70:30, volume/volume) as the mobile phase. The flow-rate was 1.0 mL/min and the eluent was monitored at 210 nm. The accuracies and precisions of the assay fall within ±15% for all quality control samples and within ±20% for the lower limit of quantitation, which was 1.0 ng/mL using 500 μl of plasma. The overall recovery of the sample pretreatment procedure for Ecteinascidin 743 was 87.0±5.9%. The drug was found to be stable in human plasma at -30°C for at least 2 mo. At room temperature Ecteinascidin 743 was stable in human plasma for 5 h at most.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 52 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:100940 HCAPLUS

DOCUMENT NUMBER: 126:112679

#### Audet 10 531533 audet

TITLE: Progress in the acquisition of new marine-derived

anticancer compounds: development of

ecteinascidin-743 (ET-743)

AUTHOR(S): Jimeno, Jose M.; Faircloth, Glynn; Cameron,

Lewis; Meely, Kathleen; Vega, Eduardo; Gomez, Andres;

Sousa-Faro, Jose Ma Fernandez; Rinehart, Kenneth

CORPORATE SOURCE: Pharma Mar, S.A., Research and Development, Madrid,

28760, Spain

SOURCE: Drugs of the Future (1996), 21(11), 1155-1165

CODEN: DRFUD4; ISSN: 0377-8282

PUBLISHER: Prous

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review, with 65 refs., of the progress in the acquisition of new

marine-derived anticancer compds. and development of

ecteinascidin-743 (ET-743).

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 53 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1996:590891 HCAPLUS

DOCUMENT NUMBER:

125:299492

TITLE:

Immunosuppressive pharmaceutical compositions new biological activity from a marine Agrobacterium sp.

INVENTOR(S):

Faircloth, Glynn T., Jr.; Millan, Francisco

R.; Fernandez, Librada M. C.; Sarabia, Cristina A.

PATENT ASSIGNEE(S):

Pharmamar, S.A., Spain

SOURCE:

U.S., 13 pp.

DOCUMENT TYPE:

CODEN: USXXAM

Ι

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5556777	Α	19960917	US 1993-118989	19930909
PRIORITY APPLN. INFO.:			US 1993-118989	19930909
GI				

AB The active component of the pharmaceutical composition of the present invention is a compound which has been isolated from the controlled aerobic fermentation of

a marine microorganism, Agrobacterium sp. PH-103. The pharmaceutical compns. of the present invention, useful for post surgical graft tolerance, are thus directed to compns. comprising a pharmaceutically acceptable carrier, diluent, or excipient and an effective amount of sesbanimide (I). I is an alkaloid that has been previously been isolated

from seeds and reported to be useful as an antitumor drug. Prior to the present invention however, this compound had not been isolated from any fermentation broth nor had it been determined to have immunomodulatory activity.

L20 ANSWER 54 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1996:356586 HCAPLUS

DOCUMENT NUMBER:

125:25629

TITLE: AUTHOR (S): Structure-Activity Relationships of the Didemnins Sakai, Ryuichi; Kishore, Vimal; Kundu, Bijoy; Faircloth, Glynn; Gloer, James B.; Carney, John R.; Namikoshi, Michio; Sun, Furong; Hughes,

Robert G., Jr.; et al.

CORPORATE SOURCE:

Roger Adams Laboratory, University of Illinois,

Urbana, IL, 61801, USA

SOURCE:

Journal of Medicinal Chemistry (1996), 39(14),

2819-2834

CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English Bioactivities of 42 didemnin congeners, either isolated from the marine

tunicates Trididemnun solidum and Aplidium albicans or prepared synthetically and semisynthetically, were compared. The growth inhibition of various murine and human tumor cells and plaque reduction of HSV-1 and VSV grown on cultured mammalian cells were used to assess cytotoxicity and antiviral activity. Biochem. assays for macromol. synthesis (protein, DNA, and RNA) and enzyme inhibition (dihydrofolate reductase, thymidylate synthase, DNA polymerase, RNA polymerase, and topoisomerases I and II) were also performed to specify the mechanisms of action of each analog. Immunosuppressant activity of the didemnins was determined using a mixed lymphocyte reaction (MLR) assay. These assays revealed that the native cyclic depsipeptide core is an essential structural requirement for most of the bioactivities of the didemnins, especially for cytotoxicities and antiviral activities. The linear side-chain portion of the peptide can be altered with a gain, in some cases, of bioactivities. In particular, dehydrodidemnin B, tested against several types of tumor cells and in in vivo studies in mice, as well as didemnin M, tested for the mixed lymphocyte reaction and graft vs host reaction in murine systems, showed remarkable gains in their in vitro and in vivo activities compared to didemnin B.

L20 ANSWER 55 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1995:926111 HCAPLUS

DOCUMENT NUMBER:

123:340084

TITLE:

Pyrrolo[3,2-e]indole derivatives, process for their

preparation, and applications as antitumor

agents

INVENTOR(S):

Delamano Garcia, Jose; Tojo Suarez, Gabriel; Lopez

Goti, Carmen; Fernandez Almeida, Jesus; Garcia Gravalos, Dolores; Faircloth, Glynn Thomas

PATENT ASSIGNEE(S):

Universidad de Santiago de Compostela, Spain

SOURCE:

PCT Int. Appl., 45 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Spanish

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE APPLICATION NO.

DATE

WO	9514022			A1		1995	0526	WO	1994-	ES12:	2		1	9941	118	
	W: JP,	US														
	RW: AT,	BE, C	CH, I	DΕ,	DK,	ES,	FR,	GB, G	R, IE,	IT,	LU,	MC,	NL,	PT,	SE	
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EP	680964			A1		1995	1108	EP	1995-	9007	73		1	9941	118	
EP	680964			B1		2002	0116									
	R: AT,	BE, C	CH, I	DΕ,	DK,	ES,	FR,	GB, G	R, IE,	IT,	LI,	LU,	MC,	NL,	PT,	SE
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								ES	1993-	243			A :	9930	209	
								WO	1994-	ES12:	2		W I	9941	118	
								US	1996-	4918	70		A1 :	9960	515	
OTHER SO	OURCE(S):		C	CASR	EAC	T 12	3:340	0084;	MARPAT	123	:340	084				

OTHER SOURCE(S): CASREACT 123:340084; MARPAT 123:340084

Me

OH

AB New pyrrolo[3,2-e]indole derivs. of formulas I and II are claimed [wherein R = COR''; R'' = (un)substituted aryl or heteroaryl; R' = H, (un)substituted alkanoyl, alkenoyl, alkynoyl, (hetero)arenocarbonyl; X = Cl, bromo, iodo, alkyl- or arylsulfonyl]. The compds. are prepared by: (a) deacetylating II (R = Ac) to give II (R = H); (b) subjecting the latter to a cyclopropyl ring-opening reaction to give I.HX (R = R' = H); (c) reacting this with an acid R''CO2H to yield I (R = COR'', R' = H); (d) optionally reacting I with a base in the presence of a condensing agent to obtain II; (e) optionally reacting I with a carboxylic acid in the

III

Anderson

presence of a condensing agent or with an acid chloride in the presence of a base to give I (R' = acyl). I and II are useful as antitumor agents. For example, deacylation of II (R = Ac) with NaOMe in MeOH gave 99% II (R = H), which was cleaved by anhydrous HCl in EtOAc to give 93% I.HCl (R = R' = H, X = Cl). Coupling of this with 5-[(benzofuran-2-ylcarbonyl)amino]-1H-indole-2-carboxylic acid in DMF in the presence of EtN:C:N(CH2)3NMe2.HCl gave 69% title compound III. In the P388 tumor model in mice, III at 0.5 mg/kg/day i.p. for 9 days gave at treated/control survival ratio of > 391%.

L20 ANSWER 56 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1995:350780 HCAPLUS

DOCUMENT NUMBER:

122:114884

TITLE:

Palau'amine: a pharmaceutical from a sponge

(Stylotella agminata).

INVENTOR(S):

Kinnel, Robin Bryan; Gehrken, Henning-Peter; Scheuer,

Paul Joseph; Gravalos, Dolores Garcia; Faircloth,

Glynn Thomas

PATENT ASSIGNEE(S):

Pharma Mar, S.A., Spain Eur. Pat. Appl., 6 pp.

SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.					KIND DATE			AP	PL	ICATION	DATE				
						-									-
EP	62638	83			A1		1994	1130	ĒΡ	19	994-3027	770		1994041	9
EP	62638	83			B1		1998	0916							
	R:	AT,	BE,	CH,	DE,	DK	, ES,	FR,	GB, G	R,	IE, IT,	LI,	NL, PT	r, se	
CA	21216	613			AA		1994	1021	CA	. 19	994-2121	1613		1994041	9
ZA	94026	686			Α		1995	0721	ZA	. 19	994-2686	5		1994041	9
AT	17118	80			E		1998	1015	AT	19	994-3027	770		1994041	9
ES	21248	844			Т3		1999	0216	ES	19	994-3027	770		1994041	9
AU	94605	590			A1		1994	1027	AU	19	994-6059	90		1994042	0
AU	67209	98			B2		1996	0919							
JP	07118	8274			A2		1995	0509	JP	19	994-8187	70		1994042	0
JP	34896	635			B2		2004	0126							
US	20020	06202	:3		A1		2002	0523	US	20	001-9282	288		2001081	0
US	20023	19837	9		A1		2002	1226	US	20	002-1847	724		2002062	8
PRIORIT	Y APPI	LN. I	NFO	.:					GB	19	993-8111	L	Α	1993042	0
									US	19	994-2303	89	B1	1994042	0
									US	20	000-5359	900	B1	2000032	7
									US	20	001-9282	288	B1	2001081	0

AB Palau'amine is isolated from a sponge (S. agminata). The compound may be used in the manufacture of pharmaceutical compns. for the treatment of tumors, fungal infections and as an immunosuppressant. The structure of the compound was determined and the compound was active against certain bacteria and fungi and tumors.

L20 ANSWER 57 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1992:150144 HCAPLUS

DOCUMENT NUMBER:

116:150144

TITLE:

Immunosuppressant and antitumor acetylenic

alcohols from Cribrochalina vasculum

INVENTOR(S):

Gunasekera, Sarath P.; Faircloth, Glynn T.;

Wright, Amy E.; Thompson, Winnie C.; Burres, Neal

PATENT ASSIGNEE(S):

Harbor Branch Oceanographic Institution, Inc., USA

SOURCE:

U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

US 5073572 KIND DATE APPLICATION NO. DATE _____ _____ _____ A 19911217 US 1990-481475 19900216 PRIORITY APPLN. INFO.: US 1990-481475 19900216

OTHER SOURCE(S):

MARPAT 116:150144

Five acetylenic alcs. with immunosuppressant and antitumor activity are isolated from C. vasculum and characterized. The alcs. displayed immunosuppressive activity in mixed lymphocyte reaction and CV-1 cytotoxicity assays. In vitro against P388 leukemia cells, and cells from human lung (A549) and colon (HT-29) tumors, these compds. had IC50s of  $0.86-s.90 \mu g/mL$ .

L20 ANSWER 58 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:3685 HCAPLUS

DOCUMENT NUMBER:

114:3685

TITLE:

New acetylenic alcohols from the sponge Cribrochalina

vasculum

AUTHOR(S):

Gunasekera, Sarath P.; Faircloth, Glynn T.

CORPORATE SOURCE:

Div. Biomed. Mar. Res., Harbor Branch Oceanogr. Inst.,

Inc., Fort Pierce, FL, 34936, USA

SOURCE:

Journal of Organic Chemistry (1990), 55(25), 6223-5

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

Journal LANGUAGE: English

AB Five new biol. active acetylenic alcs. were isolated from a sponge C. vasculum collected in Belize. Structures were determined by spectroscopic anal. with emphasis on 1H- and 13C-NMR data. All compds. showed immunosuppressive activity on in vitro mixed lymphocyte reaction tests and in vitro antitumor activity on mouse P388 tumor cell lines. This is the 1st report of branched aliphatic acetylenic compds. from

marine organisms.